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Biological & Medical Serials

CANADA MEDICAL AND SURGICAL JOURNAL.

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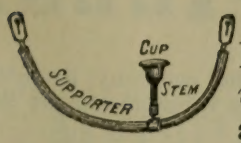

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CANADA

MEDICAL & SURGICAL JOURNAL

Original Communications.

NOTES OF ABNORMALITIES,

Observed in the Dissecting Room of McGill University during the Winter Session of 1875-'76.

By Francis J. Shepherd, M.D., M.R.C.S., Eng.

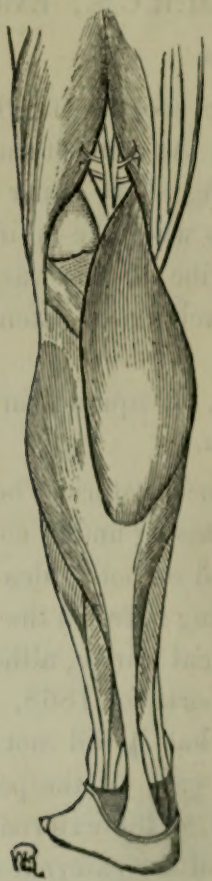
Demonstrator of Anatomy.

The following notes were taken on the spot during the last winter's session, from 36 bodies dissected. As some of the cases are rather unusual I thought the following short paper might prove acceptable to those of your readers who take an interest in Anatomy. I do not pretend to describe *all* the variations which occurred, but only those which attracted most attention at the time.

Osseous System.—We had one subject, (a squaw), in which there were three floating ribs on each side.

Muscular System.—One example of the posterior belly of the digastric and the stylo-hyoid muscle passing under cover of the external carotid artery. This occurred on both sides of the same subject. The stylo-hyoid muscle passing between the external and internal carotid is of no very great rarity, although I see mentioned in the Guy's Hospital Reports for 1868, in the article on '*Anatomical Abnormalities*,' that it did not occur once in 158 cases. I have never seen a case of the posterior belly of the digastric passing under cover of the external carotid recorded. In this subject the course of the external carotid

was very superficial, in consequence of the variation. I found that the pectoralis minor arose nearly as often from the second, third and fourth ribs as from the third, fourth and fifth, and that the coraco-brachialis muscle was only perforated by the musculo-cutaneous nerve in about two-thirds of the cases. No case of abnormality of the muscles of the back or face was noticed, these muscles usually being most regular. We had, however, one subject, (a Frenchman), in which the muscles of the face were developed in an extraordinary manner, so as to be easily dissected out by a first year student. In this subject the platysma myoides was nearly as strongly developed as the corresponding muscle in the horse. We had three examples of the biceps brachii arising by three heads, all occurring on the right side. In two of the cases the third head arose just below the insertion of the coraco-brachialis; in the third case, it arose between the two fleshy digitations of the brachialis anticus muscle. In another case there was a slip given off from the biceps which joined the pronator radii teres muscle; this slip gave origin to the greater part of the bicipital fascia. There was one example of an extra secundi internodii pollicis arising from the radius opposite the origin of the proper secundi internodii pollicis. In this subject the origin of the extensor indicis was much more extensive than usual. One example of a slip of muscle being given off from the extensor ossis metacarpi pollicis, and joining the abductor pollicis. We had one case in which the palmaris longus was absent. Absence of the gemellus superior *on both sides* in one subject. In one subject the gastrocnemius muscle of left leg was most extraordinary in having its external head *completely wanting.*



I am indebted to Mr. W. G. Robinson for the sketch from which the accompanying wood cut is taken.

This occurred in a female. On dissecting off the integument and fascia of the left leg, the first thing that came into view was the little plantaris muscle. The usual point of origin of the outer head of the gastrocnemius was quite bare, the bone merely being covered by a little fat. The internal head was of the usual size. I have nowhere seen a case of this kind recorded in any of the works I have consulted, and I believe the case to be quite unique. The muscles of the shoulder and hip were found to be quite normal in all the subjects dissected.

In one subject there was a separation of about two inches at the insertion of the two recti abdominis muscles. They commenced to separate about the umbilicus. There were two examples of absence of the plantaris muscle, in each case occurring on the left side.

Arterial System.—We had one example of the superior laryngeal artery arising directly from the external carotid instead of from the superior thyroid; it was about twice the usual size. The arch of the aorta was abnormal in one case only. In this case the left vertebral artery was given off directly from the arch. In the same body there was a thyroidea ima artery given off from the innominate.

There were four examples of high division of the brachial artery, all occurring on one side of the body only. In Nos. 1 and 2, the division took place just below the insertion of the deltoid muscle. In case No. 3, the division occurred in the latissimus dorsi muscle. The branch on the radial side afterwards became the ulnar by crossing the radial about the bend of the elbow, and then continued on as usual. In case No. 4 the artery given off on the ulnar side afterwards became the radial by crossing the ulnar just above the bend of the elbow. In this case the radial recurrent artery was given off from the ulnar. We had one low division of the brachial, the division taking place at the lower border of the pronator radii teres muscle. In this case the ulnar artery was quite superficial throughout its whole course, and the inter-osseous, radial and ulnar recurrent arteries were given off from the brachial. There was one example of a large median artery being given off from the brachial and

accompanying the median nerve, supplying the same number of fingers ($3\frac{1}{2}$) as the median nerve, and taking the place of the ulnar in forming the superficial palmar arch; the ulnar artery in this case was smaller than usual, and accompanied the ulnar nerve, supplying the little finger and half the ring finger like it. The deep branch of the ulnar communicating with the deep palmar arch was given off as usual. This peculiar distribution of the arteries of the forearm and hand occurred on both sides in the same body. We had three examples of the obturator artery being given off from the deep epigastric. Two occurred on the right side and one on the left. The obturator artery in all three cases passed to the outer side of the femoral ring. In one case the obturator artery gave off a very large pubic branch; all three examples occurred in females. In four cases the external circumflex artery was given off from the superficial instead of the deep femoral, three cases occurred on one side only. There was one example of the peroneal artery forming the dorsalis pedis, and to a certain extent taking the place of the anterior tibial. This peroneal artery was of large size, and after supplying the peroneal muscles it pierced the inter-osseous membrane and appeared on the front of the leg between the extensor proprius pollicis and extensor longus digitorum muscles, continuing on as the dorsalis pedis artery. In this case there was a small anterior tibial artery which supplied the anterior tibial muscles, and ended a little below the middle of the leg.

Nervous System.—There were two cases where the musculo-cutaneous nerve was given off from the median below the insertion of the coraco-brachialis, this muscle being supplied in the one case by a few filaments from the outer head of the median, and in the other by a special branch from the outer cord of the brachial plexus given off high up. In both cases the brachialis anticus and biceps muscles were supplied by the musculo-cutaneous nerve, as usual. There were two examples of the median nerve passing behind the brachial artery. There were seven cases where the great sciatic nerve divided high up; in all these cases the external popliteal nerve pierced the pyrifor-

mis muscle. Three of these cases occurred in both sides of the same body.

Internal Organs. — No great abnormalities. There was one case of horse-shoe kidney, which has already been described in the June number of this Journal. There were two examples of the descending colon having a meso-colon; in one case this meso-colon was about 1½ inches long, and in the other (a squaw) the meso-colon was 3½ inches; in this case the descending colon was about ten inches longer than usual. In both these cases the peritoneum would have been wounded in the operation of colotomy.

In three subjects, (females) the sigmoid flexure of the colon was continued across, from about the middle of the iliac fossa on the left side, to the sacro-iliac synchondrosis of the right side where the rectum commenced, and was normal for the rest of its extent, going from right to left, however, instead of from left to right. In two of these cases the lower transverse colon was two feet long. Several cases in which there was a meso-rectum were also noticed.

ACUTE ARTICULAR RHEUMATISM,

Treated by Salicylic Acid,—By Dr. H. C. Burritt.

J. D., aged 40 years, a farmer residing 5 miles from town, was attacked with acute articular rheumatism on the 10th of May last. I first visited him on the 13th. At this time the disease had involved the ankles, knees, hips and right arm and hand. The joints were hot, swollen, tender, and exceedingly painful. He was perspiring profusely, perspiration acid, pulse 114, temperature 103°, tongue thickly coated, urine scanty and very high colored, and throwing down a large quantity of lithates; bowels constipated. Having noticed in all the cases which I saw reported of the use of salicylic acid in this disease, that the relief produced by it was something extraordinary, and being somewhat doubtful of it, I resolved now to test its efficacy for myself.

At 3 p. m., during my first visit, I administered gr. x. sal-

icylic acid. (Kenneth Campbell and Co's preparation), and ordered the dose to be repeated at 4 p. m. and then every two hours, until the pains were partially relieved, when an interval of 4 hours was to be left between the doses. I ordered also an enema for the bowels, and milk diet. The medicine was administered regularly until 10 o'clock of the same night, when the patient refused to take any more, as he thought he was perspiring too freely, and the pains were not so severe. He could not be prevailed upon by the nurse (his brother) to resume the medicine until 5 o'clock the next morning. After this the powders were given every 4 hours until I saw him at 3 p. m. on the 14th, twenty four hours from the administration of the first dose of medicine.

I found him lying on his side, in which position he had placed himself without assistance, and from which he turned when I entered the room. The pains and tenderness had entirely subsided, but the joints felt stiff. He was still perspiring profusely, the pulse was 80, (34 less than the day previous) ; the temperature 99°, (a difference of 4° from previous day) ; tongue cleaning and moist ; urine not so scanty or dark, still heavily loaded; bowels had moved twice with the enema. Ordered the powders to be continund every 4 hours for the next 24 hours, then every 6 hours. I did not visit him again, but had reports from him each day. He was out of bed and able to walk about the room on the 17th, went down stairs on the 18th, was out of doors on the 20th, and walked about half a mile on the 21st. Ten days from the time I first visited him he was in my office in town. There has been no tendency to a return of the disease, and no ill effects have remained, or were produced by the medicine. There was no other medicine used while using the salicylic acid. It was continued for three days after my second visit, every 4 hours during the first, every 6 hours during the second, and every 8 hours during the third. On the fourth day after my second visit I prescribed a tonic of iron and quinine, which was continued for about a week. The mode of administration which I adopted was to mix the powder in oatmeal gruel. This succeeded admirably in preventing any

irritation of the mouth or throat. There were no local applications used.

In this case, (which was one of average severity), the disease was arrested in less than 24 hours from the time of the first administration of salicylic acid, with about 80 grains of the medicine and completely annihilated in 4 days with about 220 grains. I trust that if such satisfactory results can be obtained from this drug, that it will be brought into more general use before long. Judging from the results given in all the reported cases which I have seen, and the most satisfactory termination of my own case, it seems to me that salicylic acid in the treatment of acute inflammatory rheumatism, possesses the following advantages *over any other* plan of treatment that I have ever seen adopted.

First.—It arrests the progress of the disease and gives permanent relief from pain, tenderness, &c., in a much shorter time.

Second.—If used early before any cardiac complication exists, it will by its prompt arrest of the disease, prevent the occurrence of such complications, and the consequent development of *organic* disease of the heart in many cases.

Third.—It does away with the necessity for using any local application.

Fourth.—No ill effects have as yet been known to follow its proper administration.

The irritation of the mouth and throat produced by it is rather a disadvantage, nor do I think that this would be over come, in many cases, by the use of capsules or wafer paper, as the majority of patients have a great antipathy to swallowing bulky substances, and particularly where they have to be used frequently. I found the thin gruel answer very well, and I think it will be found to do so in most cases, until some solvent is discovered, which will enable us to administer it in solution, in less bulk than any of those so far recommended. There are several mentioned in "The Druggist's Circular," for July, but there are objections to them.

PETERBORO, Ont. July 10th, 1876.

CASE OF CEREBRAL ANEURISM.

By John Bell, A.M., M.D.

On the morning of May 29th Mrs. R. was found by her children lying speechless in bed. She was 40 years old, was married at 21, and had borne five children, the youngest of whom is now 15. She was of medium height and rather thin. It was said that she was sometimes abused by her husband, who beat her about the head, and finally left her to earn a living by washing. She was rather peculiar in her habits, often doing little during the day, and then sitting up till two in the morning to finish her work. She occasionally suffered from vertigo,—a very severe attack seizing her on rising from the wash tub about two weeks before her death. Her sight left her for the time, and she afterwards complained of her head aching as if some one were pounding it. Her memory was very bad. She frequently was unable to recollect where she had left things. I found out after her death that for about a year she had been very deaf, and that her hearing had become much worse during the last two weeks of her life. She was not very strong, but had never suffered from any acute illness. She was a very temperate woman.

Seeing her about 8 a.m., I found her lying rigidly extended on her back with her arms at her sides, and the thumbs strongly flexed across the palms. Her countenance bore a stupid staring expression, and the pupils were moderately dilated and of equal size. The conjunctivæ were not sensitive on being touched. The thoracic, abdominal and pelvic organs were all healthy as far as could be made out.

After administering a dose of potass. bromid. and ext. valerian. fld. and rousing her up, she seemed slightly conscious on being spoken to, and the pupils were then sensitive to light. During the day she became still more conscious, and her eyes followed those moving about the room. She passed water freely, and her bowels moved from the effects of a dose of croton oil. Ice had been applied to her head, and bottles of warm water to her feet, which had now become very warm.

In the evening she became worse, and more insensible,

twitching and moving in a restless manner. The same treatment was continued, with the addition of ext. ergot. fld. to the mixture. Her urine was drawn off by catheter and examined, but contained no albumen. She slept or dozed for considerable intervals during the night and until her death. On Sunday the 28th she had complained of headache, and was more nervous than usual.

The next forenoon, 30th, she seemed better than she had been the previous evening, but was utterly unable to speak. Her left arm and leg were found to be completely paralysed, and later in the day became quite dark in color. She was unable to close the right eye.

She took beef tea and milk in small quantities, and was ordered to have brandy if there were any signs of sinking. In the evening she became decidedly comatose, with bellows breathing and accumulation of mucus in the larynx and trachea. There were now no convulsive movements. She died at 11.30 p.m. on the 30th.

It was thought that an extravasation of blood had taken place in the anterior portion of the right hemisphere.

Post mortem, by Dr. Osler 11 hours after death.

Body that of an average sized poorly nourished woman.

Head.—Nothing special noticeable about the soft parts or the calvarium. Veins of the pia mater moderately full of blood; subarachnoid fluid scanty. In the removal of the brain, clots were met with in the neighbourhood of the middle fossa of the base of the skull on the right side, and they were seen to have proceeded from a large extravasation which had taken place in the right Sylvian fissure. The convolutions of the middle lobe in the vicinity were considerably lacerated, the brain tissue broken down and replaced by a dark clot. About a handful of coagulated blood was removed, most of which was in and about the Sylvian fissure. Only a thin layer of blood existed in the base, around the optic commissure and perforated spaces. A delicate coagulum also extended over the convolutions in the lateral region on the right side. The circle of Willis and middle cerebral artery were removed for subsequent examination. The sub-

stance of the brain appeared healthy ; the ventricles were empty, and nothing abnormal was observed about the ganglia at the base. On carefully washing away the clots from the right middle cerebral artery, the source of the hæmorrhage was ascertained to be a small aneurism, situated in the fork of the chief bifurcation of the vessel. This had ruptured, and the blood had escaped through a large ragged orifice. The situation, size and appearance of the rupture are well shown in the annexed wood-cut. The remaining vessels of the brain were found healthy, no atheromatous change being detected in their walls.

Abdominal organs healthy ; no affection of the kidneys.

A beautiful false corpus luteum was found in the left ovary, (she had menstruated exactly three weeks before) measuring fully $\frac{7}{8}$ of an inch in diameter, and with a pale yellow convoluted wall. The central coagulum was of a dark red colour. In the same ovary at the other end was a small corpus luteum about $\frac{1}{3}$ the size of the large one, with a decolorized coagulum and much more convoluted wall.

Uterus somewhat enlarged. Mucous membrane appeared congested and tumefied.

Hospital Reports.

MEDICAL AND SURGICAL CASES OCCURRING IN THE PRACTICE OF THE MONTREAL GENERAL HOSPITAL.

Case of Acute General Tuberculosis, fatal by Meningitis.—Under DR. ROSS. Reported by MR. R. L. MACDONNELL, B.A.

S. B., æt. 14, was admitted into the Montreal General Hospital on the 5th August, 1875, under Dr. Ross. She is a strongly built girl, though small for her age, and has been for the last seven years an inmate of one of the charitable institutions of this city. Nothing could be learned of her family history.

Her illness began rather suddenly nine days ago, with fever and feeling of great weakness, together with great pain in the back. This was soon followed by vomiting, (easily however controlled), and some headache. She then became very restless, somewhat delirious at night, frequently waking sharply and giving a sudden loud scream. At the same time she complained of her back, and sometimes of her head. It was then noticed that she squinted. She was seen by Dr. Ross on the afternoon of the 5th, and was removed to hospital the same day.

Aug. 6th—She now lies in a drowsy condition. Can, however, be roused to partial consciousness by being spoken to. Head continually directed to the right side, and eyes half shut. There is decided strabismus and very frequent spasmodic movement of the right eye. Right pupil slightly more dilated than the left. Both act very sluggishly with light and oscillate considerably. Neck stiff, but no retraction of the head. If the head be moved she screams and cries out "Oh! my back." Pulse 68.

Ordered—Head to be shaved, bladders of ice to the head, the spinal ice-bag to be applied, and to take potass. iodid, gr. x. every four hours.

Aug. 7th.—Passed a bad night. Screamed a good deal. More drowsy. Drooping of right upper eye-lid. More dilatation of that pupil; that eye more stationary; pupils do not

act. Abdomen retracted. Cerebral maculæ of Trousseau particularly well marked. The ophthalmoscope showed all the retinal vessels intensely congested. Pulse in the morning, 68; in the afternoon 108. Temperature 101°.

Ordered. Calomel gr. v. to be followed by black draught.

Aug 8th.—Had two severe convulsions yesterday evening and to-day is profoundly insensible; marked ptosis on right side with corresponding pupil widely dilated. Pulse in the morning 104; temperature 100·6°, in the evening, pulse 128; temperature 101°.

Aug. 9th—Comatose and livid; noisy breathing; pulse 130; temperature 101.6°. Died this afternoon.

Post mortem.—Eighteen hours after death; vessels of scalp congested and bleed freely on being divided. Cerebral veins of the convexities gorged to their utmost extent with blood. Considerable effusion of serum beneath the arachnoid. At the base of the brain this membrane was found thickened and opaque. Similar patches of thickening, with slight deposit of lymph were also noticed along the line of some of the congestted vessels. The commissure of the optic nerves, and the roots of both third nerves were embedded in a deep mass of gelatinous lymphy deposit. It was thicker and more opaque over that of the left side. No distinct evidence of tubercle could be found in this region, but a quite decided granular condition of the vessels was noticed, especially at the inner extremity of and passing along the fissure of Sylvius. Puncta vasculosa numerous and distinct. Corpus callosum wanting in firmness. Fornix very much softened. Ventricles considerably distended and containing about 4 oz., of limpid serum. No signs of softening in any part of the ventricular walls. Choroid plexuses extremely congested, velum interpositum opaque and thickened, and dotted with minute specks of miliary tubercle. Spinal cord and its envelopes, normal, arachnoid especially being clear, transparent and unaffected. Heart and pericardium healthy. Pleuræ adherent at several points by fine bands, and their surfaces sparsely studded with a number of fine miliary tubercles, gray and hard. The lungs also contained in their substance a

small quantity of similar tubercles, which were found aggregated into a small mass at the apex of the left lung.

Miliary tubercles were also found in the capsules of the kidneys.

A few also existed in the structure of these organs, in the peritoneum, the surface of the liver and in the capsule of the spleen.

Case of Pneumonia with Acute Meningitis. — Under Dr. Reddy. Reported by Mr. James Bell.

H. F., aged 38, was admitted to Hospital, May 27th, under care of Dr. Reddy. He walked up stairs unaided, and quietly sat down and waited till his bed was prepared for him. He was very quiet all the afternoon, never speaking except when spoken to. He was first noticed to be delirious about 9 p.m., but the nurse thinks that he was not rational even when admitted. This being the case no reliable history of his attack could be got from him. The following facts, however, were subsequently elicited from his friends. That his wife died on the 15th of May. That there occurred at this time some domestic trouble, (nature unknown to the reporter), which seemed to cause him great annoyance. On the 17th he complained of pains in his right side and in his head, but worked on till Saturday night (20th inst). He was very bad on Sunday. The pain was very severe and he became delirious. He was very quiet throughout all his illness, but was never rational from Sunday the 21st. He was a steady, hard-working man, had been a file maker for the last six or seven years. At first Dr. Reddy looked upon the case as one of typhoid fever and ordered him two pints of milk daily. No medicine was ordered. He was watched on Saturday night by Mr. Gillies. At midnight his temperature was $103\frac{3}{5}°$, pulse 104; respirations 34. Sunday morning, 8 a.m., pulse 100; respirations 32; temperature $102\frac{2}{5}°$. During the day he remained quiet and apathetic, but still unable to give rational answers to questions put to him. About 9 p.m. he became quite delirious and wanted to get out of bed, &c. Mr. Smellie and myself sat up that night watching him. At 11.45 p.m., his temperature was $103\frac{3}{5}°$, pulse

100. Dr. Burland ordered him quinæ sulph., gr, xv, which was given him at 12 m. We remained with him till 7 a.m. recording his pulse and temperature, every hour with the following results. At 1 a.m., (1 hour after taking the quinine), temperature 103°, pulse 105. 7 a m., temperature 101⅝°; pulse 96; respirations 40. He did not sleep at all during the night, but was very quiet. When questioned his answers showed that his mind was wandering. He remained in the same condition during the day on Monday, but showed signs of increasing weakness, and was ordered 4 oz., of wine. No diarrhœa at any time. Temperature was not taken on Monday night.

Tuesday, May 30th.—General appearance just the same as on the last two days. He did not appear to have the characteristic languid look of a typhoid patient. At 10.15 a m. his temperature was 104⅜°. At 11.40 a.m. his temperature was 105½°. pulse 116; respirations 44. He was given fifteen grains of quinine at 12 m. At 1.30 p m. his temperature was 103⅜°. At 3.00 p m. temperature 105°; pulse 118, weak and compressible. He was ordered six ounces of wine, and brandy if necessary. He became much weaker, and was given brandy and water from early in the afternoon. He was ordered to be sponged four times daily with water at 80° F. This was done. The nurse had difficulty in getting him to take his nourishment in the afternoon and evening. 8.30 p.m., temperature 105⅗°, pulse 120; respirations 50.

Wednesday, May 31st.—Died at 6.00 a.m.

June 1st, 1876.—*Post mortem.*—Rigor mortis found to a slight extent in the arms, more so in the legs. Body not emaciated, muscles moderately developed. Posterior surface of the body discolored.

Abdomen.—Position of the abdominal viscera normal. No fluid in the abdominal cavity.

Thorax.—Lungs very much pigmented. Upper lobe of left lung covers two-thirds of the pericardium, and is nearly in contact with the lung of the opposite side. No fluid in either pleural cavity.

Pericardium.—Thin and contains about ℥ii of fluid.

Heart.—Medium size. Moderate amount of fat about the base. An indistinct patch of attrition visible on the right ventricle. On removing the heart a considerable amount of dark fluid blood and a few clots escaped.

Right Ventricle contains a semi-colorless firm clot. Tricuspid orifice of normal size. Tricuspid valves healthy. One segment fenestrated.

Left Ventricle contains a few small clots ; one flat and extending slightly up into the left auricle.

Aortic Valves.—Slightly thickened at the corpora Arantii Segments also fenestrated.

Muscle of the heart of normal appearance.

Endocardium covering the *columnæ carneæ* somewhat cloudy.

Right lung—Adherent at the apex, and presents a number of cicatrices. Upper lobe, with the exception of the anterior and lower margin, in a condition of red hepatization, the cut surface presenting the usual appearance of that condition. The bronchial tubes of the hepatized area are filled with plugs of lymph, which look like small suppurating foci on superficial examination. The remainder of this lung, together with the whole of the left lung is in a state of engorgement, and collapse is evident over the lower lobe. Scattered over the surface of the pleuræ of both lungs, chiefly at the bases, are small white firm granules, feeling to the touch like small shot. These look very much like miliary granulations (?). Some of these, however, are flatter and not granular, and they may be simply fibroid thickenings of the pleuræ.

Left lung also slightly adherent at the apex and to a greater extent behind.

Spleen, 8½ oz. Soft. Pulp of a purplish-red color and semi-diffluent in character.

Kidneys. — Left kidney 5 oz. Capsule thin and readily detached. On section the organ contains a moderate amount of blood. Proportion between cortex and medulla, normal.

Right Kidney.—5½ oz. Similar characters to those of the left. At the lower part of one pyramid is a small, white firm nodule,

about the size of a pea. No miliary granulations over the surfaces.

Stomach.—Mucous membrane scattered over with branching red points. In places there are minute ecchymoses. Towards the pyloric end there is a patch where the mucous membrane appears infiltrated.

Intestines.—Mucous membrane of duodenum and jejunum healthy. In the ileum Peyer's glands are plainly marked, and pigmented at the bases. The villi in this region of the intestine look dark, probably due to fatty degeneration.

Liver 55 oz. Contains a considerable amount of blood. Otherwise normal.

Brain—48½ oz.

Surface of the brain.—Longitudinal sinus filled up with a thin layer of yellowish-white lymph. A similar condition exists in the Sylvian fissures. In the right Sylvian fissure the layer is very thick. A thick layer of the same character exists around the optic nerves, and extends over the perforated spaces to the pons, and on either side to the under surface of the middle lobe, continuing from this it extends as a thick layer posteriorly over the pons, medulla, and contiguous portions of the cerebellum. Extending laterally it lines the lower and anterior edges of the cerebellum as a thick greenish white layer. Behind the medulla a similar condition exists, and the lymph extends to the groove between the lobes of the posterior surface of the cerebellum.

Superior surface of the Brain. — Vessels of pia mater moderately full. A considerable amount of greenish-yellow lymph exists beneath the arachnoid of both anterior lobes. A slight amount is seen along the ventricles over the posterior surface. Over the convolutions of the left posterior lobe, a thin layer of extravasation exists. It is of a uniform dark-red colour, due to some effusion of blood from the vessels. On section the white substance is seen to be glistening and moist. Puncta vasculosa, moderately marked. Fornix and septum, exceedingly soft, and break down on attempting section. The ventricles contain a moderate amount of fluid. They appear slightly dis-

tended, and their walls are soft. Here and there in the course of the vessels small extravasations are met with. Small extravasations are also found along the vessels in the fourth ventricle. Velum interpositum involved in the inflammation, and is thick and greyish-yellow in colour. No trace of miliary tubercles to be seen on superficial examination, either about the base or along the vessels in the Sylvian fissures.

Reviews and Notices of Books.

A Treatise on the Diseases of the Nervous System. By Wm. A. Hammond, M.D., Professor of Diseases of the Mind and Nervous System, in the Medical Department of the University of the city of New York, President of the New York Neurological Society, &c., &c., with one hundred and nine illustrations. Sixth edition, re-written, enlarged and improved. 8vo. pp. 883, New York, D. Appleton & Co., 1876.

The work of Professor Hammond, is so well known to the profession that it is quite unnecessary to enter into any detailed remarks on the contents. This is the sixth edition which has been called for, of itself a sufficient indication of the estimation in which it is held. This is not a mere reprint of former editions, for "it has been to a great extent re-written. There is not a chapter which has escaped extensive alterations and additions, and the amount of new matter is so great that the volume contains twice as much as any one of the previous issues. Besides the changes made in the chapters of the former editions, a number of diseases are now considered which were not embraced in the previous publications, and some of these are for the first time treated of in the English language."

A new feature of this edition is the introduction of a chapter upon that most interesting disease exophthalmic goître. The writer properly, we think, believes that this affection may rightly be claimed amongst the nervous affections.

The great merit of the entire work consists in the fact that it is in no sense a compilation, but is the systematized product of the author's own experience and observation. Thus every branch

of this important, and, at the same time, extensive subject is found enriched by the records of Dr. Hammond's own cases, and by the expression of his own decided views and opinions. In these latter, also, he is no servile follower of others, but evidently has thought earnestly and strongly for himself on every point, and not unfrequently arrives at conclusions which, at first sight may seem startling, because they are peculiar.

The entire volume is divided into five sections, as follows: Diseases of the Brain, Diseases of the Spinal Cord; Cerebro-spinal Diseases; Diseases of the Peripheral Nervous System; Toxic Diseases of the Nervous System.

The publishers' part has been well done, and the book presents a very neat appearance.

An Elementary Treatise on Diseases of the Skin. By HENRY G. PIFFARD, A.M., M.D., Professor of Dermatology, University of the city of New York. 8 vo. pp. 375: London and New York. Macmillan & Co. 1876.

This manual is specially designed "to provide for the student a guide to the study of elementary dermatology, and to afford the practitioner assistance in the recognition and treatment of cutaneous diseases." The author is thoroughly conversant with his subject, and has produced a good practical work, one which possesses many advantages over the text books of Wilson, Fox, and Neumann.

The arrangement is excellent, the chapters clearly written, not too long, and free from that tedious terminology which distracts the student, and makes him forswear the study of an exceedingly interesting department of medicine.

The work is embellished with some 50 woodcuts and 5 photo-micrographic plates. It seems ungracious not to speak favourably of a method which may eventually be of great service in illustration, but we do think that the latter would have been better omitted. For the purpose of instruction they are valueless.

Extracts from British and Foreign Journals.

Unless otherwise stated the translations are made specially for this Journal.

The abuse of Hypodermic Injections of Morphia.—Under this heading in Schmidt's Jahrbücher der Gesammten Medicin, Jahrgang, 1876, No. 1, are recorded nine cases illustrative of the evil effects which too often may be traced to the good-natured weakness of medical men, who yielding to the importunities of their suffering patients entrust them with an agent potent alike for good or evil. The temptation to make too liberal a use of a remedy which affords speedy and certain relief, soothes the pains, real or imaginary of the sufferer, quiets the anxieties of the friends, and saves the medical attendant from worry and annoyance, frequently requires more than ordinary fortitude for its successful resistance; but it is not only in private practice that we find this evil has taken root, for in many hospitals the hypodermic syringe and solution of morphia form the resident physician's inseparable companions; nor does he always stop to enquire whether the discomforts of those under his care could not be removed by some less objectionable means.

Although the habitual use of morphium may occasionally be attended with no serious mischief, such cases form the exception rather than the rule, for morphium like alcohol is prone to undermine the vital powers of those who become its slaves. Like alcohol, its long continued use weakens both body and mind, perverts the functions of the brain and nervous system generally, and in extreme instances gives rise to the same psychical phenomena as occur in cerebral paralysis.

1. A man æt. 45, became accustomed to the use of morphium injections for the relief of pain occasioned by an ulcer of the stomach. At the end of six months he was taking six to twelve injections daily. Each injection brought relief to the pain, but did not arrest the vomiting. The appetite had failed entirely, and sleep was almost out of the question. The countenance was pale and sodden; the body excessively emaciated. Periods of apathy and excitement alternated with each other, and walking

was rendered impossible by violent tremor, whenever it was attempted. Mental hallucination and dulness of intellect gave place to paroxysms of rage when the morphium was refused.

Chloral substituted for the morphium afforded only temporary relief, and soon had to be abandoned on account of the headache which it occasioned. Other soothing remedies were tried without benefit, and the injections were resumed, but from this time systematically reduced, so that after the lapse of two months, the patient was able to exist without them.

2. A man 52 years of age, well to do in life, and without any hereditary tendency to insanity, five years ago commenced the use of morphium injections by the advice of his family physician for the relief of stiffness and loss of power in the lower extremities which came on after recovery from nephritis. The quantity used per diem was at first 1-6 grain, but had been gradually increased to about 3 grains. Failing power both of body and mind induced him to make several attempts to give them up, but the feeling of depression always became so great that he was each time compelled to return to their use. Notwithstanding the large doses of morphium, he suffered from sleeplessness, and also from complete loss of appetite.

Chloral seemed at first to diminish the craving for morphium, but the general health did not improve. There was great bodily weakness, especially of the lower extremities, cramps of the flexor muscles of the arms, failure of memory, mental depression, slowness of speech, inability to take food, pallor and loss of flesh ; a condition of mental excitement now supervened, and when the morphium was withheld he became delirious. By some means or other he obtained possession of a solution of morphium, of which he swallowed a large quantity (about twenty grains). This was followed by a death-like sleep from which he awoke after twelve hours still under the influence of hallucinations. Periods of intense excitement and subsequent depression now followed, and an enema containing 45 grains of chloral instead of soothing, caused furious delirium. This, however was quieted by a hypodermic injection of $\frac{1}{2}$ gr. of morphium.

A second dose of chloral was followed by the same result. The

patient was ultimately cured by being placed under restraint in an asylum.

3. A man æt. 42, commenced the use of morphium for the relief of sciatica, and continued it after the sciatica had ceased to trouble him. In a few years time both physical and psychical effects of the drug became manifested; when abstained from, great mental excitement ensued. Chloral caused headache and nausea, and could not be substituted for the morphium. Symptoms of paralysis set in, and the patient was placed under treatment in an hospital. The quantity of morphium was then greatly reduced, but so much excitement followed that restraint became necessary; when this had lasted about 24 hours, he became quieter but refused food. He slept little, and talked incoherently. The pupils were unequal, the tongue tremulous, the face pale and expressionless, and the urine was voided involuntarily. The patient became extremely weak and depressed, symptoms of collapse appeared from time to time, and stimulants had to be administered. A week later his condition began to improve, and at the end of three weeks he was well enough to be discharged from the hospital, but remained weak in his mind and subject to hallucinations, and finally became paralyzed in the lower extremities.

The other six cases presented similar features; three of them however entirely recovered under careful management after the use of the drug had been discontinued for some time.

It is remarkable that the abuse of morphium produces almost the same symptoms as are usually regarded as indications for its administration, and that when its use is abandoned, either suddenly or gradually, the disturbances which it has caused, especially in the cerebro-spinal and vaso-motor nervous systems, are at first considerably increased. The prognosis of "morphium disease," is unfavorable inasmuch as few can abandon the vice, and those who do generally become confirmed drunkards. With regard to treatment, the best results are obtained by stopping the drug at once, and completely. To this end the patient must be treated as a prisoner, and narrowly watched, else he will inevitably obtain, and continue to use it. After twelve hours total abstinence symptoms of collapse which may even

threaten life, usually set in, and, in some instances demand a small dose of morphium for their relief. The patient should be allowed to take heavy wine,the quantity of which, however,should be diminished as soon as nourishing food can be taken. If during the first 48 hours the patient does not moan and lament but has a good appetite and looks brisk, it is a sign that he has secretly continued taking morphium. The patient must be narrowly watched during the stage of depression, to prevent any attempt to commit suicide. Prolonged baths are of use in promoting sleep and soothing neuralgic pains ; the cold shower bath may be used if there is not much collapse. Diarrhœa is best combated by the free use of fluids taken internally. Vomiting generally resists every therapeutic agent hitherto tried, but is an additional indication for the administration of nourishment, for this reason nutritive enemata are often indispensable from the outset. The subsequent treatment must be conducted on general principles. Employment both for body and mind is desirable so soon as the patient's condition will admit of it.

The administration of morphium by hypodermic injection should never be entrusted to the patient, or nurse. It is no excuse for the physician to say he is too busy to do the injecting himself, for if this be the case he is in duty bound to adopt some other method of administertng the morphium which can always be done in such a way that he may retain some control over the quantity used.

Treatment of Diphtheria. —The treatment of diphtheria requires to be considerably varied in its details, according to the nature of each case, the constitutional peculiarities of the patient, and the type of the epidemic. There are, however, certain general principles of treatment which must always be acted upon, and the infringement of which may lead to disastrous consequences.

Even a limited experience will teach an observant practitioner not to expect curative results in diphtheria from particular medicines, or vaunted formularies of treatment, but to strive to

support life by the measures best suited to each case, rationally using medicines as exigencies and opportunities arise, and not in a routine fashion. The first Begbie of Edinburgh, and I may say the best physicians who have given their views on this subject to the profession, express themselves to that effect. Begbie, whose skill as a therapeutist stood very high, concludes the summary of his able and instructive essay on "Diphtheria and "its Sequels" in the following sentence: "Lastly, as we have no "specific remedy for diphtheria, the disease and its sequels must "be treated on the general principles which regulate our prac- "tice in fever, in inflammation, and in nervous disorders of "asthenic character."

The treatment of diphtheria may be conveniently discussed under the three heads of *general*, *local*, and that which pertains to the *paralytic affections of convalescence.*

The general treatment has to be considered in respect to *atmosphere*, *food*, and *medicines.*

The temperature of the room ought to vary as little as possible, a temperature of about 17° Cent. (63° F.) being maintained. The patient ought to be screened from currents of air, care being taken that free ventilation is not interfered with, and that the air is moistened by a regulated escape of steam from a suitably contrived kettle. * * * A thermometer and a steaming kettle are indispensable in the chamber of the diphtheritic patient. The maintenance of good ventilation, combined with a moist, warm, and equal temperature, is a paramount necessity when tracheotomy has been performed; and in all cases, and all stages of the disease, in which there exists diphtheritic sore throat, it is important, as a means of moderating the paroxysms of glosso-laryngeal spasm, that the patient inhale air which is soft, warm and equable in temperature. Even in the rare cases in which the throat affection is absent, it is the duty of the physician to take the measures best calculated to secure in the sick room such an atmosphere as has been described; for, in such cases, the disease may at any moment manifest itself in the air-passages.

The support of life by stimulants and aliments—the feeding

of the patient—is universally stated to be an essential element in the treatment of a case of diphtheria. * * * Success in alimentation, and success in tracheotomy are the only means by which we gain time, by which we support life for a period, we hope of sufficient duration, to enable the disease to run its natural course, guided and aided by us whenever therapeutic opportunities arise.

It is necessary to insist emphatically on the fact, that, in the treatment of diphtheria, there is nothing like alimentation in importance. Unfortunately, however, this knowledge is too often of little importance to physicians and patients in bad cases, for in such there is almost no power of assimilation, and there is also extreme difficulty in inducing the patient to take food, or having taken it, for him to retain it.

Diphtheria-stricken patients generally loathe food, and children often struggle violently against attempts to feed them. When food is swallowed, it is often rejected immediately. The difficulties in the way of feeding are always great, and sometimes they are insuperable ; but, still, they must be resolutely faced. The alimentation of diphtheritic patients requires great skill, tact, and I might almost say inventive power on the part of the medical attendant, assisted by the co-operation of a well-disciplined, conscientious, and obedient nurse. Each case has dietetic difficulties which are its own, and must be met from hour to hour as they arise.

While, therefore, it would be tedious to go into details, a short statement of the practical principles which require to be carried out may be briefly stated. Pounded raw beef in very small quantities, moistened with the juice of underdone roast beef, is generally the best basis of alimentation. It will seldom be expedient to administer more of this preparation than one teaspoonful at a time, and not nearly so much if there be nausea. With the raw beef and other aliments, a little *pepsina porci* ought to be given from time to time. I have seen the difficulties of alimentation much diminished by the judicious addition of pepsine to food. Together with the raw beef and other aliments we must give stimulants liberally ; the exact quantity must be

determined by the exigencies of each case, and will be subject to frequent variations. As a general rule, however, it is well to remember that brandy is well borne in diphtheria by patients of all ages. Its effects require to be carefully observed in young subjects; but it may be accepted as a fact, that children bear brandy, sherry, and all spirituous stimulants exceedingly well. Proofs of the accuracy of this statement constantly present themselves in practice, both in respect to diphtheria and other diseases. "When," says Sir William Jenner, "the disease begins with marked feebleness of pulse, dusky redness of the throat, and extreme sense of general weakness, wine in full quantities is required at an early period. From six to eight ounces of sherry or port for an adult, and as good a diet as the patient can take, must be given from the first. In the course of the disease much larger quantities of wine, or a proportionate amount of brandy, may have to be given. Of course, the quantity of stimulants must be regulated by the age and habits of the patient, as well as by the character and stage of the disease; but remember that, as a rule, young children bear and take with advantage, in diseases of depression, much larger quantities of stimulants than you would naturally suppose. A child of three years of age, now under treatment for diphtheria at the Children's Hospital, is taking, with apparent advantage, from one to two drachms of brandy every hour, i.e., from three to five ounces of brandy every twenty-four hours."

When we have nausea and vomiting to contend with, we must chiefly trust to brandy and pounded raw beef (duly pepsinated), as the dietetic articles most fitted for keeping up life. When the stomach will bear more bulky food, it is always useful to give a variety of suitable aliments, among which may be mentioned milk, egg-flip, and panada. As soon as it can be borne, cod-liver oil ought to be given. It has a wonderful power in preventing and restoring the waste of tissues.

There is very little if any scope for the administration of medicines when a bad case of diphtheria is at its worst. Till the fury of the disease has spent itself, it is wise to give as little medicine as possible, and never to give any at all unless the indication be clear and positive.

When there is nausea and vomiting we may harmlessly and hopefully give oxalate of cerium or creosote, but we must avoid on account of its depressing influence on the heart, the other great remedy for irritability of the stomach—hydrocyanic acid. As soon as the patient can digest it, iron in some form ought to be given in very small doses. It may be very usefully combined with syrup of the phosphate of lime. Ferruginous medicines are urgently demanded from the very dawn of convalescence by the anæmic aspect of the patient, while cod-liver oil and phosphate of lime are equally called for by his emaciated appearance. Building-up treatment, alimentary and medicinal, is most useful in preventing or moderating the paralytic affections incident to advanced convalescence.

There is no specific medicine for diphtheria—there is no way of *curing* that disease ; but there are many medicines and many measures of signal benefit to diphtheria-stricken patients, by the skilful use of which they are often enabled to recover.

With the use of general means, it is sometimes proper in laryngo-tracheal manifestations of diphtheria to combine local treatment to dislodge or dissolve the false membrane. The treatment by emetics adopted for the former purpose is local in its intention, but general in its action on the patient.

Emetics in diphtheria are seldom of much use ; but still there are many cases in which it is right to try to effect dislodgement of the false membrane. The emetics which ought to be selected are those which do not depress, and which act quickly. Perhaps sulphate of zinc is the most, and tartar emetic the least, suitable. The latter is not only unsuitable, but is pretty certain to prove dangerous by its depressing action. * * * The tartar emetic treatment of diphtheria has been generally regarded as one of the wildest heresies in the practice of medicine, though some able men of large experience think and teach otherwise.

* * * * * * * * * * * * * * * * * * *

Tracheotomy.—Each case has to be decided for on its own merits ; and the physician in charge must be in constant readiness with his instruments and appliances to perform tracheotomy at very short notice. In the majority of cases the actual crisis

is so sudden as to leave no time to divide responsibility with a colleague. The patient must not therefore (if the attendant can help it) be put in jeopardy by waiting for a formal consultation, or till a surgeon can be found to admit oxygen to the craving lungs. On the other hand, if time permit, there is no emergency in medical practice in which it is more for the advantage of the patient and practitioner that there should be a collation of opinions and a division of responsibility.

In the diphtheritic semi-asphyxiated child, tracheotomy is an operation requiring great care and a good light. There is no surgical difficulty, but the operator, if unaccustomed to the use of the knife, must be cautious. Nay, even an expert requires to proceed slowly, for children with turgid necks have been lost from hurried tracheotomy, performed with imperfect light, by good operators. The difficulty and danger of tracheotomy in diphtheritic children arise from the turgidity of the veins of the neck, caused by the state of semi-asphyxia.

The patient ought to be placed on his back on a table, with a narrow solid cushion, so adjusted under the neck as to project and stretch the trachea. A quart bottle wrapped in wadding, or in anything at hand, answers admirably. This being arranged, the operator with the least possible delay—for the patient's position is a very trying one—makes an incision through the skin, in the mesial line, from the cricoid cartilage nearly to the sternum. The tissues ought then to be divided layer by layer, the gorged veins being carefully avoided, and the muscles and vessels being held to each side by the fingers of the left hand of the operator, or by two blunt hooks held by an assistant. When the trachea has been laid bare, a small incision is made in it, close to the cricoid cartilage, with a sharp pointed bistoury, after which a probe-pointed bistoury is employed to complete the necessary opening. By means of the tracheotomy-dilator, or if that be not at hand, by means of a common dressing forceps, the opening is dilated, and the operation completed by introducing a double canula, and then fastening it by tapes. It may be necessary to draw out detached portions of false membrane before the canula can be introduced. In such cases it is well to keep the opening dilated

till the false membrane and mucosity have been got rid of by coughing or otherwise. The inner canula requires to be frequently removed and cleansed from obstructions. Another method of performing tracheotomy in diphtheria has been recently made by Saint Germain, of the Hopital des Enfants Malades of Paris. The object in view is to avoid hæmorrhage from cutting the engorged veins. A red-hot probe-pointed bistoury is the instrument employed. It is used in the first instance to burn through the skin, intervening tissues, and crico-thyroid membrane; and then by using the cutting edge, to divide the cricoid cartilage, and a few rings of the trachea. With the aid of Lalonde's dilator, the canula is then introduced. * * * *

Local Applications intended to destroy, detach or dissolve the false membrane in laryngo-tracheal diphtheria are in favor with many. Fortunately, they are not so much relied on as they were by Trousseau, and those who wrote by his inspiration. This change of opinion is, as yet, more apparent in the conversation and current practice of the French physicians than in their works. It is now generally admitted that Trousseau attached an undue, and even a dangerous importance, to destroying by caustics the false membrane as soon as it appeared on the pharynx, and on any part of the visible mucous membrane of the throat. His statement that the destruction of the false membrane not only prevented the spread of the local mischief, but even arrested the career of the general disease itself, is now denied by most French clinicians of repute. This change of opinion is fortunately likely to be permanent, for it has been clearly shown, and is now generally believed, that caustics, strong acidulated washes, and active chemical solvents, act mischievously by irritating the mucous membrane, and so exciting increased exudation of caco-plastic lymph.

Gargles, washes, and various other applications, if not of an irritating character, may be used with impunity, and sometimes with benefit. Some of them tend to promote separation of the false membrane without producing any rawness or hurtful irritation of the subjacent mucous membrane. The advantage derived from them is, we must remember, frequently temporary,

and more apparent than real. So long as the disease is in the exudation stage, layer after layer of false membrane will continue to be deposited on the surface of the mucous membrane; and the rapidity with which this reproduction proceeds,may more than counter-balance the benefit derived from the separation of the upper strata. It follows, therefore, that the only topical applications to be used are those which do not irritate. Among the safer and more useful topical applications are glycerine and borax, (of the Br. Ph.), lime water, a very diluted solution of hydrochloric acid in distilled water and a solution of one drachm of neutral sulphate of soda in eight ounces of water. Moist warmth applied externally to the throat generally gives much comfort, and is in no way injurious. It greatly mitigates the pain arising from tumefaction of the cervical glands.—*Edinburgh Medical Journal*, June, 1876.

The action of Jaborandi.—Stumpf, basing his observations on experiments made upon 50 febrile and non-febrile patients in Ziemssens' Clinic, gives a tolerably favorable account of the action of this drug. The leaves and less effective stalks, were employed, an infusion being made of 5:100, and given as one dose. The mixture was taken cold, and the persons experimented upon lightly covered. In order to estimate the amount of excretion by the skin and lungs the patients were weighed before beginning the experiment, and after the termination of the sweating, and from the difference the weight of the saliva, which in the interim had been expectorated, was subtracted. On the day after the experiment, also on the previous and succeeding one, the daily amount of urine was measured, and the pulse, respiration, and temperature (in rectum) taken. With regard to the secretion of sweat, in 50 experiments only two gave a negative result; in 44 cases in which the weight was estimated the excretion through skin and lungs ranged from 1470–13425 grains, the mean being 7080 grains; whereas in an individual, also under treatment, but without Jaborandi, the mean loss in the same time was ascertained to be 1350 grains.

In several persons who had remained in a vapour bath and had perspired freely the average loss of weight was 7080 grains, The increased flow of saliva, which supervened each time, remained, on the whole, somewhat longer than the diaphoresis, the one had a mean duration of 2 hours and 7 minutes, the other 2 hours and 18 minutes. It yielded in 39 observations the average of 3870 grains. On analysis the organic constituents were found diminished, the salts in most cases increased. In about ¾ of the cases the nasal excretion and tears were increased, and also the bronchial mucus. No qualitative change could be ascertained in the urine ; whether any quantitative alterations took place could not be determined definitely. The drug only occasionally reduced the temperature in febrile and non-febrile persons. The pulse was always accelerated. The respirations were frequently increased,but as often diminished. Of unpleasant consequences nausea occurred in about half the cases ; vomiting less often. Sleeplessness and headache came on in many cases. Strangury was observed only three times.—*Deutsch Arch. f. Klin. Med.* xvi, quoted in *Centralblatt f. d. Med. Wissen*,No. 24, 1876.

Pilicier speaks much less favourably of Jaborandi, and states with reference to its diaphoretic action, that he has usually found it very moderate. The observations were made in the Clinic at Berne, and the preparation used was the leaves. The sweat was first acid, then it became neutral, and often slightly alkaline. The sialagogue effect followed. The temperature sank in the course of two or three hours 0·3–1·0° C. In most cases this fall was preceded by a period of about half an hour's duration, in which the temperature in the axilla rose 0.2—0.5° C.

In guinea-pigs, dogs and cats, Jaborandi produces increased flow of saliva and tears, and excites diarrhœa with increased peristaltic action of the intestines, also in the two last vomiting and copious urination. Strong doses injected into the veins caused death by dyspnœa in a few minutes. The antagonism between atropin and Jaborandi was demonstrated satisfactorily in many experiments.—*Diss. Bern.* quoted in *Centralblatt*, No. 24, 1876.

Purjesz has studied the action of this drug very carefully in five cases—3 chronic renal disease, 1 mitral insufficiency, 1 psoriasis, and gives elaborate details of the action on the skin, salivary glands and kidneys. The secretions of these organs were greatly augmented and an evident reduction in body-weight caused thereby during the experiment. In one case only the diaphoretic effect was absent. The pulse as a rule was accelerated—6-24 beats. In most instances a slight elevation of temperature was noticed for a variable time after the administration of the medicine, followed by a reduction.

The diuretic action was well marked, but, unfortunately in the cases of Bright's disease, it was accompanied by a notable increase in the amount of albumen. No special benefit resulted from the medicine in the case of mitral disease, nor was there any diminution in the anasarca or ascites. Loss of appetite and occasional nausea and vomiting were the chief unpleasant effects of the remedy.

The author concludes from his experience that Jaborandi is unsuitable as a therapeutic remedy in the dropsy of heart and kidney diseases.—*Deutsch Archiv. f. Klin Med.*, XVII, Hft. VI.

Brandy in a certain stage of Rheumatic Fever.—In some cases of rheumatic fever, I care not whether they be treated by the alkaline method, strictly so-called, by blisters to the joints, by opium, or by *nihilism*, as well as by suitable food, I know that a certain stage is reached in which no measure appears so useful as the addition of a little brandy to the diet.

When any of the above-mentioned methods prove of little value, the patient is apt to become very weak, anæmic and exhausted. The perspirations are profuse, the sweat being often alkaline, and the cardiac action becoming feeble. It is in such a condition, often after two or three weeks of ineffectual treatment, that the beneficial influence of brandy is well marked. I generally begin with an ounce in the course of twenty-four hours, and seldom have to order more than two ounces during the day to secure improvement. The signs of amendment are

improved relish for food, diminished sweating, and relief to the pains. The force of the circulation is increased, and a sense of relief is usually expressed by the patient.

It will be at once obvious that this is no piece of routine practice, that I am very far from putting in a bold plea for the indiscriminate use of brandy in the treatment of rheumatic fever, I would not, on several accounts, be misunderstood on this point.

Again, the use of this dietetic adjunct has to be considered in the event of cardiac inflammatory processes. If there be active pericarditis, and the patient be young, as would probably be the case, it is well to withhold stimulants as a rule. The quieter the circulation is kept the better, and the same holds good in the case of valvular endocarditis. Inasmuch as these cardiac symptoms are more urgent about the second week of the illness, they do not consequently press for so much consideration in the stage to which I now specially refer, which is most commonly met with after the third week. It has appeared to me that this condition is somewhat apt to supervene where the alkaline treatment has been vigorously pursued, and has not proved of much avail to subdue the essential features of the disorder. There is then manifestly additional cause both for the anæmia, and the depressed state of the circulation. Notwithstanding this occasional result of the alkaline method, I feel bound here to state my conviction of its value in the majority of cases of rheumatic fever.—*Ibid.*

Foreign body in windpipe. — Mr. Maunder, on Friday, 12th inst., removed from the left bronchus of a boy aged thirteen, (an in-patient of the London Hospital) a smooth oval piece of glass an inch long, and forming part of a sleeve link. It had been in the trachea eighteen days without symptoms, and about thirty hours before operation had fallen into the left bronchus. After consultation with Dr. Down, tracheotomy was performed,the patient was inverted and shaken, but with no avail. A loop of stout silver wire was then passed six or seven inches through the wound downwards, and to the left; on the wire being withdrawn, the foreign body came with it. The patient is well.—*Medical Times and Gazette.*

CANADA
MEDICAL ASSOCIATION.

THE NINTH ANNUAL MEETING

OF THE

CANADA MEDICAL ASSOCIATION

WILL BE HELD IN TORONTO,

ON WEDNESDAY, 2nd AUGUST, 1876.

THE CHAIR WILL BE TAKEN AT 10 A.M.

A. H. DAVID, M.D., Edin.,
General Secretary.

MONTREAL, 15th June, 1876.

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Use of Physostigmine.—A new therapeutic indication for the use of Physostigmine; by Professor Laqueur of Strasburg.

Reasoning from the now well established fact, that atropine sometimes causes an acute outbreak of glaucoma in eyes predisposed to this disease, Prof. L. was induced to try the effect of its therapeutic antagonist, physostigmine, in cases of glaucomatous tension of the eyeball. The preparation used was the "Sulfate neutre d' eserine," prepared by Vée of 42 Faubourg St Denis, Paris.

Three or four drops of a $\frac{1}{3}$–$\frac{1}{2}$ p. ct. watery solution of this preparation were dropped into the eye daily, at intervals of about 20 minutes.

In five cases of simple glaucoma, and one of secondary glaucoma, (in consequence of partial luxation of the lens), thus treated for 3 or 4 days, the tension was in every instance notably reduced, and ten days later still further diminished, with a corresponding improvement of vision. In the case of secondary glaucoma, the tension fell from T + 2 to the normal, and has remained normal ever since. Experiments on healthy human eyes and on the eyes of rabbits were negative, inasmuch as no perceptible alteration of tension occurred.

The action of physostigmine in diminishing abnormally increased tension, probably depends upon its power of directly stimulating the smooth muscular fibres of the choroidal vessels. In a work recently published, Harnack and Witkowski have shown that physostigmine stimulates both smooth and striped muscular fibre independently of terminal nerve filaments. The Professor thinks that benefit may be derived from the use of physostigmine; (1) in all cases of glaucoma simplex, especially where there is no abnormality in the iris or anterior chamber; and it is in these cases that experience has shown iridectomy to be of no avail.

(2) In all cases of glaucoma in which iridectomy has been performed without benefit.

(3) In those cases of secondary glaucoma in which the movements of the iris are not impeded by anterior or posterior synechia.

Meningitis as a complication of Pneumonia.—By Ed. Surugue.

The connexion existing between pneumonia and various manifestations of the character of delirium or convulsion has been pointed out by numerous authors, but the existence of true meningitis in the course of this disease is still questioned by some physicians, although M. Laveran has drawn attention to the coincidence. M. Surugue has sought to furnish some new material for the solution of this question. His work is based upon the analysis of 12 cases, most of them furnished by M. Vulpian. There is deduced, from an anatomical point of view, the most positive proof that the cerebral meninges participate in the inflammation in certain cases of pneumonia. In the pia mater is found every possible degree, from mere vascular congestion up to the most extensive purulent effusions of acute meningitis.

The symptoms, on the contrary are generally not at all well marked. Usually there is observed headache, delirium, vomiting, and then coma : but these symptoms which might occur during a simple pneumonia, do not possess diagnostic significance. A more reliable indication, but one which is frequently wanting, is a slowness of the pulse, which is never found in acute pneumonia, but which on the contrary is tolerably common in meningeal irritation. Dilatation of the pupils also points to some cerebral complication.

In other cases, patients show decided head-symptoms, such as apoplectic attacks, hemiplegia, retraction of the head, wandering delirium. Sometimes spinal symptoms are added to these, such as tetanic rigidity, tremors, or exaggerated reflex movements.

The difficulty of the diagnosis arises from the fact that sometimes the pneumonic symptoms disappear entirely, being masked by these cerebral phenomena : or again from the manifestations occurring during the course or the decline of a recognised pneumonia, being put down to the account of alcoholism or anæmia, but never to meningitis.

In some of these cases the thermometer may be able to settle

the diagnosis: when, for example, after an apoplectiform attack, the temperature should be found 102°, we might conclude that most probably we had to do with pneumonia, because, in an attack of true apoplexy, there is an initial depression of the temperature.

Meningitis, associated with pneumonia, is one of the most dangerous possible complications: as yet, it has always proved fatal. Still the author raises the question of the possibility of effecting a cure even in these cases, and cites, in support of this view, four cases which seem to him conclusive. Of these four cases, one only appears to us to possess any value. It is that of a man 20 years of age, who had pneumonia accompanied by hemiplegia, and who recovered. Two others have some of the features of the atrophying paraplegia of the convalescent, and the last seems to have been a paralysis independent of the pneumonia,and coming on a month after the chest trouble had been entirely recovered from.

The treatment most commending itself for these meningeal complications appears to be the application of leeches and cups to the nucha or behind the mastoid process.

(*Thése de Paris*, 1875. *Revue des Sciences Médicales* 15 *April*, 1876.)

Diphtheria.—In the treatment of diphtheria, in 102 cases, Dr. C. E. Billington, of New York, had the following results—viz., 14 deaths and 88 recoveries. His mode of treatment is local disinfection with perchloride of iron or lime water and glycerine, also the internal administration of salicylic acid and sulphite of soda. He gives the following prescription.—

℞. Acid. salicylic. gr. x.; sodii sulphitis, ℥ss.; glycerini, ℥ss.; aquæ, ℥iij. M. One teaspoonful every hour.

The well-known action of salicylic acid and sodium sulphite as antiferments indicates their extreme value in all zymotic diseases, and it is to be hoped that a recognition of their value will be followed by a more general use in such cases.

Salicylic acid especially has been found very effective in acute rheumatism, and it has been asserted that this drug is as certain a cure for that disease as quinine is for the ague.—*The Doctor.*

Penetrating Wounds of the Knee-joint.—In concluding a report of eight cases of this form of injury, Dr. A. Gayet arrives at the following conclusions: 1. A penetrating wound of the knee-joint, when made by a pointed instrument without complication, is not dangerous provided it be allowed to cicatrise in an immovable position. 2. When left to itself or improperly treated, arthritis of the most formidable character may result. 3. The dangers of arthritis are in direct proportion to the extent of the wound and the difficulties which prevent union by first intention. 4. Complications of the bony structures render the case extremely grave; nevertheless, fractures of the patella, if complicated, do not call for amputation or resection. 5. The presence of foreign bodies, however small, determines arthriti sand its consequences, and demands amputation or resection. 6. Posterior wounds would seem to be more dangerous than anterior wounds, on account of the density and number of the tissues, the presence of vessels, etc-—*Lyons Médicale*, 4, 1875.—*N. Y. Medical Journal.* E. F.

Milk diet in Albuminuria.—M. Tarnier, relying upon the good effects obtained from a purely milk diet in Bright's disease, entertained the happy idea of using it in the albuminuria of pregnancy. Employed in a certain number of cases, this regime has given uniformly good results: the albuminuria has always improved within from 10 to 15 days or entirely disappeared previous to confinement. The writer believes that, by this means, we can very frequently prevent the occurrence of convulsions. the cause of which, according to M. Tarnier, is nearly always to be found in the changes wrought in the system by a pre-existing albuminuria, which has been present for a certain length of time. To be successful, the milk diet should be instituted as soon as ever albumen is found to be present in the urine of a pregnant woman, even when there is no œdema at all and should be continued steadily until all traces of albumen have disappeared. Once convulsions have actually occurred it is of course too late.

(*Progrés Médical. Revue des Sciences Médicales*, 15 *Avril* 1876).

Treatment of Fissured and Ulcerated Nipples.—In the *Annales de Gynecologie*, Dr. Legroux advises the following treatment. Spread with a camel-hair brush a layer of elastic collodion around the nipple, in the radius of an inch or more; a piece of gold-beater's skin should then be placed over the nipple and collodion, taking care to make a few holes with a pin over the part of the gold-beater's skin which covers the nipple, so as to allow the milk to ooze through. No collodion should be spread on the nipple itself, as more pain might thereby be occasioned. By the rapid evaporation of the ether, the collodion dries up and the gold-beater's skin adheres The nipple is thus more or less pressed down by the latter, which, in drying, becomes tense. When the child is to be nursed, the end of the nipple should be wetted with a little water. The covering of gold-beater's skin becomes soft and supple, and allows the child to suck without distressing the mother.

The operative treatment of Pleuritic Exudations.—Ewald in reviewing the experience of 15 years (1860–1875) in *Frerich's Clinic* in Berlin, has arrived at the following conclusions: (1). Serous exudations should not be punctured before the third week, unless an *indicatio vitalis* arise. (2.) No serous exudation will become purulent if the tapping be performed with exclusion of the air, and previous disinfection of the instrument. (3.) In each case it can only be determined by an exploratory puncture whether the exudation is serous or purulent. (4.) Purulent exudations must be incised as early as possible, not tapped. (5.) By the present method of treatment, namely, incision in the 6th intercostal space, and washing out with disinfectants once or twice daily, for which purpose the wound is kept open with a catheter, or if contraction ensues, resection of one or more ribs, purulent exudations have a mortality of from 50 to 60 per cent. (6.) Hæmorrhage exudations are always dependent upon malignant growths of the pleuræ. (7). Serous exudations do not exclude the existence of tubercle or cancer of the pleuræ.—*Centralblatt* f. d. *Med. Wissen*, No. 22, 1876.

To Check Colliquative Sweating.—The exhaustive sweats in surgical diseases and phthisis are entirely controlled, according to Dr. Thomas J. Dunott, of Harrisburg, Pa., by small hypodermic injections of atropia and sponging with hot vinegar. In a case in point, given in the Virginia *Medical Monthly*, he writes of a case of osseous injury, "he sweats profusely and constantly. To have ice pills and hypodermic injection of $\frac{1}{100}$ gr. atropiæ sulph.; also to be sponged with hot vinegar. This controlled the sweating, which was so profuse as to keep the bed clothing saturated whenever the atropia and sponging were omitted.

It is my belief that a very small dose of atropia, when combined with the hot vinegar application, will be most effective in controlling this exhausting discharge from the skin. Neither used alone would be successful; but my experience with atropia is limited to doses no larger than the one mentioned, $\frac{1}{100}$ gr.

Administration of Salicylic Acid.—In view of the many therapeutic uses of salicylic acid, it has become important to find a menstruum that will dissolve in it sufficient quantity. The ordinary solution in some alcoholic vehicle contains so much alcohol, that it cannot be given to children or to women; while, on the other hand, the caustic character of the acid prevents its administration in suspension in a mucilaginous fluid. M. Cassan, of Paris, believes that he has found the desired solvent in the citrate of ammonia. While thirty grains of salicylic acid require an ounce to an ounce and a half of rum or cognac alone to dissolve them, if fifteen grains of citrate of ammonia be added to the acid, only two drachms of the spirit will be required to make the solution. The citrate of ammonia gives no unpleasant taste to the fluid. The following formulæ may be employed:

℞. Acidi salicylici, ʒ i.; ammon. citrat., ʒss.; spirit. vini Gallici, ℥ i.; aquæ destil., ℥ v. Or for a single potion, ℞. Acidi salicyl., grs. xv.; ammon. citrat ʒss.; syrupi simp., ℥ i.; aquæ destil., ℥ iv.—*Bulletin Général de Therapeutique*, April 30, in *N. Y. Medical Record*, June 10.

Oxide of Zinc in the night sweats of Phthisis.—I can certainly bear testimony to the decided action of oxide of zinc in checking the night-sweats of phthisis. This remedy was first employed by Dr. Robert Dickson. The dose may vary from two to four grains. I have generally found two grains sufficient. The sulphate of zinc is more highly esteemed for this purpose by some physicians, but I am not well satisfied with this myself. The late Dr. Theophilus Thompson, who strongly recommended the use of the oxide of zinc, expressed his opinion that the sulphate was less efficient, and he quotes Pereira's statement as to its inefficacy for checking cutaneous exhalation. My colleague, Dr. Andrew, who has a special field for experience in the treatment of phthisis, prefers the sulphate to the oxide as an anti-sudorific agent. The action of the salts of zinc is no doubt due to direct influence upon the nervous system. No direct experiments have as yet, I believe been made to illustrate such effects. The fear of inducing by this treatment a peculiar form of wasting disorder, which has been described as *tabes sicca*, cannot, I imagine, enter into one's mind, inasmuch as the doses recommended are not large, and because ill effects are not usually observed after the employment of the zinc salts in considerable doses for various nervous disorders.

I have not found acetic acid of equal value in checking night sweats, although I have employed from thirty to sixty minims of it for a dose. Dr. Peacock's plan of ordering nourishment to be taken by phthisical patients when they awake early in the morning in a state of profuse prespiration, is, I find a very excellent one. He recommends a cup of cold tea, made with cream, to be taken with a biscuit, or some water and claret instead.—*Ibid.*

Does Beef-tea cause or aggravate a tendency to Diarrhœa?—This question demands an answer. It is held by some physicians that in any disorders in which there is looseness of the bowels it is improper to employ beef-tea as an article of diet. Mutton-tea and other flesh juices are believed to have no tendency to act as laxatives. Now if

this be correct, it is manifestly of some importance to be aware of the fact; and the matter would have to be considered, especially in the treatment of typhoid fever, and acute and chronic dysentery.

I have paid some attention to this subject, and have to confess that I have obtained no proof whatever that beef-tea increases or aggravates any tendency to diarrhœa, either in typhoid fever or chronic dysentery. Proper regard has been paid to suitable diet in the cases I have watched. I am sure that diarrhœa is more likely to be kept up in fevers by the use of starchy and farinaceous food which, as Dr. Wilson Fox has shown, are very ill digested when there is pyrexia, owing to the inability of the salivary and pancreatic glands to furnish sufficient secretion for this purpose. While there is fever the flesh juices are better dealt with than any other food except milk, which with ice in it, constitutes the best diet of all in pyretic conditions.

That the patient may not suffer from the want of vegetable juices, it is well to adopt Sir William Jenner's suggestion of boiling some vegetable in a bag in the beef-tea, or of mixing some with the meat, and subsequently straining off all particles of it. Small quantities of lemon-juice may be added to the beef-tea with advantage. I have no hesitation, therefore, in prescribing beef-sea in any case of typhoid fever or dysentery, provided always that it is properly made, and free from solid particles and from fat. In any case, however, it is well to change the diet and employ mutton, or chicken tea in a similar manner.—*Ibid.*

Treatment of Herpes.—I am well satisfied to employ flexile collodion in most cases of herpes, requiring local treatment. The advantages of this agent are that it is simple in its application, cleanly and efficacious as a protection from irritation.

On contracting, collodion exercises compression upon the dilated vessels of the areolæ, and it prevents rupture of the vesicles. I formerly employed dusting with oxide of zinc, and

had a piece of soft cambric bandaged on to the part, but I now prefer painting with collodion. Several coats should be applied, and should the layers pell off or crack, more must be put on. It is important to prevent rupture of the vesicles for several reasons; if this happens, severe pain is apt to ensue, and the neuralgia may thereby be aggravated; again, scars are more likely to follow. It seems probable that early application of collodion may prevent the further development of vesicles. Dr. Anstie thought so, and I am disposed to agree with his opinion.

In the simpler non-neuralgic forms of herpes, such as occur on the lips, for example, collodion mixed with glycerine may be used in the proportion of five or ten minims of the latter to an ounce of the former.

Internally in the majority of severe cases, quinine appears to be the best remedy, and any persistent neuralgia must be met by such treatment as will best restore the general health.—Dr. Duckworth, St. Bartholomew's Hosp. Reports, 1875.

Aphasia—Göthe.—It is indeed strange to find that Göthe has given a perfect description of aphasia. The following passage is to be found in the sixteenth chapter of the 7th book of "Wilhelm Meister," which was written in 1797.

"Unhappily this state of things did not last long. My father was suddenly seized with an attack of apoplexy which paralysed his right side and destroyed his power of speech. We had to guess at any thing he wanted to ask for, because he never used the proper words to express the idea in his mind. I had also many anxious moments when he wished to be alone with me. He explained by means of most violent gesticulations that every one else should retire, and when we did find ourselves alone together, he could by no means utter the words he wanted to explain his thoughts. And then his impatience knew no bounds."

Any one who has observed patients suffering from aphasia cannot fail to be struck with the singular fidelity of the above description and especially the peculiar annoyance exhibited by these persons at their failure to express ideas which are clearly before them.

CANADA

Medical and Surgical Journal.

MONTREAL, AUGUST, 1876.

THE CANADIAN MEDICAL ASSOCIATION.

The annual meeting of the Canadian Medical Association will be held at Toronto on the 2nd of August, instant, and we hope to see a large and influential gathering. The Association is in the ninth year of its existence and very little has been done by it further than promoting good fellowship and social converse between the members of the Profession in the various Provinces of the Dominion of Canada. But while these meetings have been barren of any good suggestion, we think it is within the province of such an influential body as the Canadian Medical Association to allow itself to be heard on questions of general public interest. It is customary at meetings of similarly constituted bodies, to publish a programme of proceedings. If such a document exists we have not been favored with a copy, but we suppose some order of proceeding will in due time be adopted.

With all due respect we offer a few remarks on a subject of great importance to the welfare and general progress of the country, one which might be taken up and discussed with advantage at the meeting of the Association. We doubt not that the subject of Public Hygiene will come up for discussion. Any expression of opinion publicly made, coming as it will from representative men, hailing from all the Provinces of the Dominion of Canada must command respect, and we are convinced that the discussion of matters, bearing on the material welfare of the people of this Dominion, together with an honest and fearless expression of opinion, would have great weight with the Legislature at Ottawa, and reforms in sanitary enactments be the result.

We have before alluded to the absence of a general system of registration of births marriages and deaths. This appears to be a great want, as without it we are unable to ascertain the relative healthfulness or the reverse of the different parts of the country. It is the very beginning of the whole system of sanitary observation. But a system of registration to be of benefit must be uniform, it is therefore a matter not of local interest, but of general importance. Objection is raised to the establishment of civil registration, as it is thought that it would be attended with considerable outlay. This we think is an error, as it is undeniable that under the present imperfect system of clerical registration large amounts are paid into the clerical bursaries, more indeed than would be sufficient to defray the expense of civil registration.

Dr. Brouse, the member for Grenville, introduced a motion before the Commons of Canada at the last session of Parliament for the "appointment of a committee to inquire into the expediency of asking legislation with a view to constitute a Bureau of sanitary statistics at Ottawa." This motion, after some opposition, was allowed to pass, and a hurried and somewhat crude report was drawn up and there the matter ended for that session. The Canadian Medical Association might with propriety take up the discussion of this all-important subject, and we think that a memorial presented to the Commons of Canada coming from so important and influential a body of Scientists, would greatly strengthen the hands of Dr. Brouse and receive due consideration from the Legislature. Can we in Canada adopt a better system than that in force in Great Britain? The English act was introduced by Lord John Russell, with a view of redressing certain grievances in the old system of registration complained of by dissenting religious communities. Forty years experience has wonderfully altered the original act, and it is now believed to be the best in existence, in proof of which we find it being adopted by other civilized nations.

Any system to be efficient must be general and uniform. It must be carried out by officers responsible to a chief, whose office ought to be at the seat of Government. Furthermore, to secure

regularity, registration must be made compulsory. Every birth should be registered within twenty-four hours of the event, under a heavy penalty or imprisonment for failure of compliance with the law. Marriage to require registration, to give it legal status, failing registration the marriage to be illegal and not recognized by law. In the case of Deaths no burial to be permitted without a certificate of registration, to be obtained alone, after due evidence as to cause, either from a medical practitioner or after a coroner's inquiry. We cannot do better than copy the English act, or take it as a base whereon to draw up one of our own. Very much has been written regarding the mortality of our large cities, but unfortunately the source from whence we draw our inspiration is defective and unreliable ; nor will we ever arrive at anything like certainty, under the present defective method of enumeration.

Canada has published three or four decennial census, these are public documents and can be consulted by any person interested in the subject of statistics, but we fear the information to be found in them, so far as vital statistics is concerned, is quite unreliable. We have heard that these documents have cost millions of dollars. With a comprehensive system of civil registration, information of this nature would be sure and reliable, and at any time attainable, and in point of cost might be made self-sustaining, or at any rate the outlay would be considerably less than under the present imperfect system. By civil registration we could year by year note the growing strength of our country, the increase of our population other than by immigration, and the mortality from causes preventible, in different localities. These are a few benefits which might follow on the track of a General Registration Act. It is a matter which sooner or later the Government of the country will have forced upon it, and one which we should gladly see introduced into the House of Commons of Canada, not by a private member of that house, but as a Government measure with all the weight and prestige of the Government of the day.

CORONERS' INQUESTS.

It is by no means agreeable to us to feel under the necessity of recurring so frequently to the adminstration of the important office of Coroner; but we do not think we should be fulfilling our duty as a public journalist, more especially concerned with medical matters, if we did not advert to cases such as that we are about to relate.

A few weeks ago a physician of this city was sent for to attend a woman who, he was informed, was either "flooding or in labour." On arrival he found the patient to be a domestic servant in a well-to-do family—unmarried, of course. She was in bed, and said she had been delivered 12 hours previously. She had not acquainted any one in the house with her condition during the night, and in the morning simply told her mistress that she was unable to attend to her duties, and wished her sister sent for. By her side lay a dead child presenting a healthy and mature appearance. In the bed were to be seen the evidences of a recent delivery, the woman having received no attention. The physician of course notified the Coroner of the circumstances. This officer visited the house, made some enquiries of the woman and her mistress, and had the body of the infant removed to the public dead-house. An inquest was held the same evening. One witness only was examined, viz. Dr. Reed, (the physician already mentioned). His evidence consisted in a relation of the facts as above detailed, and the result of his examination of the body. This was as follows—The body was that of a large female infant, with every appearance of maturity. No marks of violence visible externally. Placenta and funis remained attached. The face and lips presented a bluish appearance. Lungs light colored and fully inflated, every portion floating freely on water. Heart filled with black blood. Vessels of brain deeply gorged with black blood. Dr. Reed therefore testified that the child was of full term, had fully breathed, and had died of asphyxia. Whereupon a verdict was brought in that this infant had died from asphyxia and no blame therefore attached to any person or persons. We

are not in possession of the actual words of the verdict, but have reason to know that the above is substantially correct.

Comment is almost unnecessary. We have before had occasion to say that, as things were, we would almost be better without a Coroner, and certainly, judging from this example of incompetency we are more than ever confirmed in that opinion.

Can any impartial person reading the above relation agree with this extraordinary jury, that "no blame" should fall upon such an inhuman mother. If she was not instrumental in taking the life of the child (and we are far from saying this), she was guilty of most criminal neglect in not taking proper measures to have some care during her confinement. Why was this investigation (?) so hurriedly conducted, and why were the circumstances to justify such a verdict not substantiated by evidence under oath ?

OCULIST TO THE GENERAL HOSPITAL.

In our last number we mentioned the appointment of Dr. Frank Buller to the post of oculist and aurist to the Montreal General Hospital. We beg to congratulate the Governors of the Hospital upon having thus provided for a want which has long been felt in this community, for it cannot be supposed that the regular members of the staff possess the necessary special acquirements for the careful, scientific, and successful management of these numerous and important cases. The appointment has been made upon the unanimous recommendation of the Medical Board, who were of opinion, that from the long experience of Dr. Buller in the Moorfield's Hospital and on the Continent, his assistance in the work in the Hospital would be a great advantage both to the public and to themselves. From the high estimation in which we know this gentleman to be held by the first ophthalmic surgeons of London, we have every reason to believe that his appointment will prove in all respects most satisfactory. We understand that Dr. Buller has already delivered a short course of extra-academical lectures on ophthalmology in connection with the Summer Session of McGill College, and that arrangements will be made for a similar course during the next Winter Session.

SUMMER SESSION McGILL UNIVERSITY.

In the May number of our periodical we announced an extended summer course in connection with the Medical Faculty of McGill University. For several years past, regular clinical instruction throughout the summer months was afforded students in the wards of the Montreal General Hospital; this was done with a view of rendering clinical instruction a characteristic feature of this school. The summer session of 1876 has been rendered more attractive by several additional subjects. The Professor of Clinical Medicine, Dr. Ross, delivered a special course on Physical Diagnosis. The Professor of Clinical Surgery, Dr. Roddick, delivered a course on Practical and Minor Surgery. Dr. Buller delivered a course of fifteen lectures on Ophthalmic Surgery. The Professor of Practical Chemistry, Dr. Girdwood, delivered his course of Practical Instruction on Chemistry, with daily work in the laboratory. The Professor of Institutes of Medicine, Dr. Osler, delivered a course of Practical Histology, and also gave pathological demonstrations in the post-mortem room at the Hospital. These lectures were open to all matriculated students of the University free of charge, with the exception of those on Practical Histology and Practical Chemistry. The session opened on the 1st May, and closed on the 22nd July; and we are gratified to be able to state that it was an entire success. We believe that between forty and fifty students availed themselves of the opportunity thus offered to acquire practical instruction.

INTERNATIONAL MEDICAL CONGRESS.

PHILADELPHIA, SEPTEMBER, 4–9, 1876.

The International Medical Congress will be formally opened at noon on Monday the fourth day of September.

The sessions of the Congress and of its Sections will be held in the University of Pennsylvania, Locust and Thirty-fourth Streets.

The General Meetings will be held daily, from 10 to 1 o'clock. The Sections will meet at 2 o'clock.

Luncheon for Members of the Congress will be served daily in the University Building from 1 to 2 o'clock.

On Wednesday evening, September 6th. Dr. J. J. Woodward, U. S. A., will address the Congress on the Scientific work of the Surgeon-General's Bureau.

The Public Dinner of the Congress will be given on Thursday evening, September 7th, at 7 o'clock.

The Registration book will be open daily from Thursday August 31st, to Saturday, September 2nd, inclusive, from 12 to 3 P.M., in the Hall of the College of Physicians, N. E. corner of Thirteenth and Locust Street, and at the University of Pennsylvania, on Monday, September 4th, from 9 to 12 M., and daily thereafter from 9 to 10 a. m. Credentials must in every case be presented.

Letters addressed to the Members of the Congress, to the care of the College of Physicians, N. E. corner Locust and Thirteenth Streets, Philadelphia, during the week of meeting will be delivered at the University of Pennsylvania.

The Secretaries of State and Territorial Medical Societies are requested to forward without delay to the Chairman of the Committee on Credentials, I. Minis Hays. M.D., 1607 Locust St., Philadelphia, lists of their daily accredited delegates to the Congress.

Delegates and visitors intending to attend the Congress are earnestly requested individually to notify immediately the same Committee.

This information is desired to facilitate registration, and to ensure proper accommodation for the Congress.

Members intending to participate in the Public (subscription) Dinner of the Congress will please notify the Secretary of the Committee on Entertainment, J. Ewing Mears, M.D., 1429 Walnut St. Philadelphia.

Gentlemen intending to make communications upon scientific subjects, or to participate in any of the debates, will please notify the Commission before the fifteenth of August.

Philadelphia, July 20th, 1876.

Personal.

E. B. C. Hannington, M.D., C.M., ('75.) has been appointed Medical Superintendent of the General Hospital of St. John, N.B. We must congratulate the Institution on its choice of such a competent man.

Joseph Hils, M.D., C.M., ('73.) has been practising since his graduation in Rhode Island, he was in town last month, and spoke highly of the condition of the Profession in that State.

Dr. Cline has completely recovered from the attack of typhoid fever. He has gone to Tadousac for the summer.

Dr. C. N. Stevenson, M.D , ('76.) is practising in Sarnia.

PNEUMATIC ASPIRATION,

AFTER THE MANNER OF DIEULAFOY.

"It is always possible, owing to Aspiration, to search for a fluid collection without any danger, whatever may be its seat or its nature."

"I have thrust these needles into almost every part of the body, into the Joints, the Liver, the Spleen, the Bladder, the Intestines, the Lungs and the Meninges, and I can affirm, and a great number of observers affirm with me, that we have never seen consecutive accidents."—*Dieulafoy on Pneumatic Aspiration*, pp. 21,24

WE invite the attention of the Medical Profession to this New Apparatus for Aspiration, constructed upon the general plan of Potain's modification of Dieulafoy's Aspirator, but containing the following improvements and inventions of our own :—

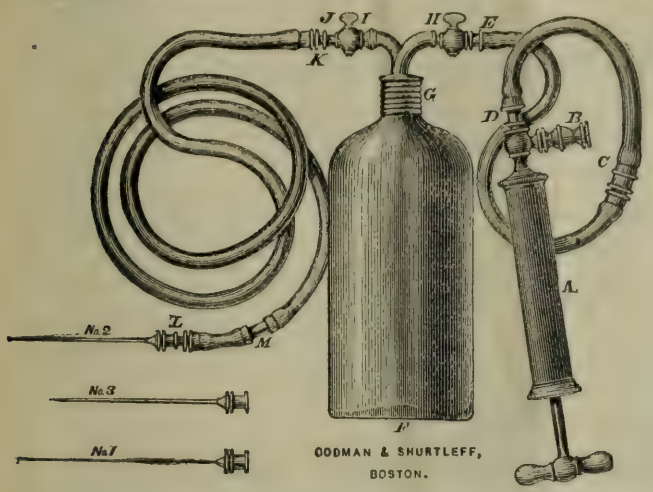

FIG. 68.

FIG. 69. The Stopper and Cocks supplied with Apparatus No. 2.

1st.—Means of changing the pump from an exhaust to a force-pump, and *vice versa*, thereby enabling the operator not only to withdraw an abnormal fluid, but to inject the cavity through the tubes and needle of the apparatus with one adapted to induce healthy action.—*See Dieulafoy on Aspiration*, pp. 276, 278.

2nd.—The employment in our apparatus No. 1, of a metal Screw Cap, fitting the neck of the receiver supplied with this aparatus so securely that it cannnot be forced from its place by condensed air while injecting, or accidentally removed while the receiver is in a state of vacuum for aspiration.

3d.—The substitution, for the ordinary oiled silk valves of other apparatus, of a kind indestructable both in form and material.

4th,—A simple and comparatively inexpensive attachment for evacuating the contents of the stomach, equal, if not superior, to any in use hitherto.

Commendations bestowed upon our Aspirators, by physicians familiar with the latest European and American ones, lead us to believe that, in some important particulars at least, they are superior to any.

In his work on Pneumatic Aspirations, Dieulafoy shows the harmlessness of the Aspiratory Puncture and the great superiority to the Exploring Trocar as a means of accurate diagnosis in all collections of Pathological Fluids. It has been used with unprecedented success in Retention of Urine, Reduction of Strangulated Hernia, in Ascites, Hydrothorax, Empyema, Pneumothorax, Effusions into the Pericardium, Serous, Purulent and Hematic Effusions of the Knee, Hydrocele Hydatid Cysts, Abscesses of the Liver, and in various other Pathological Leisons

PRICES OF APPARATUS.

No. 1. Air Pump—exhaust or condensing as described; 16 oz. receiver, of strong glass, with screw cap; three steel, gold-plated Aspiratory Needles, together with the necessary tubes, stop-cocks, &c., as shown in Fig. 68, fitted in a neat case, accompanied with printed directions..... 18.00

No. 2. The same without receiver and with rubber stopper (See Fig. 69) to fit almost any bottle of quart capacity, or less, instead of Screw-cap arrangement, also with printed directions.... 16.00

No. 3. Dieulafoy's Notched Aspirator, Nickel-plated, with two Needles. tubes, &c., in case 14.00

No 4. Stomach Attachment, as described, adapted to Pump accompanying Nos. 1 and 2, additional.....

The foregoing are the product of our own factory, and are warranted in every respect.

Also, **Dieulafoy on Pneumatic Aspiration,** post-paid by mail on receipt of.....

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NINETY-THIRD ANNUAL ANNOUNCEMENT. .....(1876-77.)

FACULTY OF MEDICINE.

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CALVIN ELLIS, M. D., *Professor of Clinical Medicine, Dean.*
JOHN B. S. JACKSON, M. D., *Professor of Pathol Anatomy.*
OLIVER W. HOLMES, M. D., *Prof. of Anatomy*
HENRY J. BIGELOW M. D., *Prof. of Surgery.*
JOHN E. TYLER, M.D., *Prof. of Mental Diseases*
CHARLES E. BUCKINGHAM, M. D., *Professor of Obstetrics and Medical Jurisprudence.*
FRANCIS MINOT, M. D., *Hersey Professor of the Theory and Practice of Medicine.*
JOHN P. REYNOLDS, M. D., *Instructor in Obstetrics.*
HENRY W. WILLIAMS, M. D., *Professor of Ophthalmology.*
DAVID W. CHEEVER, M. D., *Professor of Clinical Surgery.*
JAMES C. WHITE, M.D., *Prof. of Dermatology*
ROBERT T. EDES, M. D., *Prof. of Materia Medica.*
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CHARLES B. PORTER, M. D., *Demonstrator of Anatomy and Instructor in Surgery.*
FREDERICK I. KNIGHT, M. D., *Instructor in Percussion, Auscultation and Laryngoscopy.*
J. COLLINS WARREN, M. D., *Instructor in Surgery.*
REGINALD H. FITZ, M. D., *Ass't Professor of Pathological Anatomy.*
WILLIAM L. RICHARDSON, M. D., *Instructor in Clinical Obstetrics.*
THOMAS DWIGHT, JR., M. D., *Instructor in Histology.*
EDWARD S. WOOD, M. D., *Ass't Professor of Chemistry.*
HENRY H. A. BEACH, M. D., *Ass't Demonstrator of Anatomy.*
WILLIAM B. HILLS, M. D., *Instructor in Chemistry.*

OTHER INSTRUCTORS.

GEORGE H. F. MARKOE, *Instructor in Materia Medica.*
FRANK W. DRAPER, M. D., *Lecturer on Hygiene.*

THE FOLLOWING GENTLEMEN GIVE SPECIAL CLINICAL INSTRUCTION:

FRANCIS B. GREENOUGH, M. D., and EDWARD WIGGLESWORTH, JR., M. D., *in Syphilis.*
JOHN O. GREEN, M. D., and CLARENCE J. BLAKE, M. D., *in Otology.*
JAMES R. CHADWICK, M. D., and WILLIAM H. BAKER M. D., *in Diseases of Women.*
CHARLES P. PUTNAM, M. D., and JOSEPH P. OLIVER, M. D., *in Diseases of Children.*
SAMUEL G. WEBBER, M. D., and JAMES J. PUTNAM, M. D., *in Diseases of the Nervous System.*

The plan of study was radically changed in 1871* Instruction is given by lectures, recitations, clinical teaching, and practical exercises, distributed throughout the academic year. This year begins September 28, 1876, and ends on the last Wednesday in June, 1877. It is divided into two equal terms, either of which is more than equivalent to the former "Winter Session," as regards the amount and character of the instruction. The course of instruction has been greatly enlarged, so as to extend over three years, and has been so arranged as to carry the student progressively and systematically from one subject to another in a just and natural order. In the subjects of anatomy, histology, chemistry, and pathological anatomy, laboratory work is largely substituted for, or added to, the usual methods of instruction.

Instead of the customary oral examination for the degree of Doctor of Medicine, held at the end of the three years' period of study, a series of written examinations on all the main subjects of medical instruction has been distributed through the whole three years; and every candidate for the degree must pass a satisfactory examination in every one of the principal departments of medical instruction during his period of study.

DIVISION OF STUDIES.

For the First Year.—Anatomy, Physiology, and General Chemistry.

For the Second Year.—Medical Chemistry, Materia Medica, Pathological Anatomy, Clinical Medicine, Surgery, and Clinical Surgery.

For the Third Year.—Therapeutics, Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery, and Clinical Surgery.

Students are divided into three classes, according to their time of study and proficiency. Students who began their professional studies elsewhere may be admitted to advanced standing; but all persons who apply for admission to the second or third year's class must pass an examination in the branches already pursued by the class to which they seek admission. Examinations are held in the following order:

At the end of the first year—Anatomy, Physiology, and General Chemistry.
End of second year—Medical Chemistry, Materia Medica, and Pathological Anatomy.
End of third year—Therapeutics, Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery, and Clinical Surgery.

Examinations are also held before the opening of the School, beginning September 25th.

Students who do not intend to offer themselves for a degree will also be received at any part of the course for one term or more. Any student may obtain, without an examination, a certificate of his period of connection with the school.

REQUIREMENTS FOR A DEGREE.—Every candidate must be twenty-one years of age; must have studied medicine three full years, have spent at least one continuous year at this School, have passed the required examination, and have presented a thesis.

COURSE FOR GRADUATES.—For the purpose of affording to those already Graduates of Medi-

cine additional facilities for pursuing clinical, laboratory, and other studies, in such subjects as may specially interest them, the Faculty has established a course which comprises the following branches: Histology; Physiology; Medical Chemistry; Pathological Anatomy; Surgery; Auscultation, Percussion and Laryngoscopy; Ophthalmology; Dermatology; Syphillis; Pyschological Medicine; Otology; Electro-therapeutics; Gynæcology; and Obstetrics. Single branches may be pursued, and on payment of the full fee also the privilege of attending any of the other exercises of the Medical School, the use of the laboratories and library, and all other rights accorded by the University will be granted. Graduates of other Medical Schools who may desire to obtain the degree of M. D. at this University, will be admitted to examination for this degree after a year's study in the Graduates' Course.

Fees.—For Matriculation, $5; for the Year, $200; for one term alone, $120; for Graduation, $30. For Graduates' Course, the fee for one year is $200; for one Term, $120; and for single courses such fees as are specified in the Catalogue. Payment in advance.

Members of any one department of Harvard University have a right to attend lectures and recitations in any other department without paying additional fees.

For further information or Catalogue, address

Dr. R. H. FITZ, *Secretary*,
108 Boylston street, Boston, Mass.

*On and after September, 1877, an examination on Entrance will be required. For particulars see Catalogue.

ESTABLISHED 1859.

HENRY R. GRAY,

Dispensing Chemist.

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SPECIALITIES:

GRAY'S Unalterable Syrup of Chloral Hydrate.
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☞Physicians, Hospitals and Charitable Institutions, supplied with Genuine Drugs and Chemicals on favorable terms.

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First class clerks only employed.

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Porcelain Bed Pans, all Shapes. Spittoons,
Drinking Cups, etc., for Invalids,
Enema Syringes, every kind.

N.B.—The attention of the Medical Profession is called to the above articles, especially TRUSSES, having one of the largest assortments in Canada

BELLEVUE HOSPITAL MEDICAL COLLEGE.

CITY OF NEW YORK.

SESSIONS OF 1876-'77.

THE COLLEGIATE YEAR in this institution embraces a preliminary Autumnal Term, the Regular Winter Session, and a Spring Session.

THE PRELIMINARY AUTUMNAL TERM for 1876-1877 will commence on Wednesday, September 13, 1876, and continue until the opening of the Regular Session. During this term, instruction, consisting of didactic lectures on special subjects and daily clinical lectures, will be given, as heretofore, by the entire Faculty. Students expecting to attend the Regular Session are strongly recommended to attend the Preliminary Term, but attendance during the latter is not required. *During the Preliminary Term, clinical and didactic lectures will be given in precisely the same number and order as in the Regular Session.*

THE REGULAR SESSION will commence on Wednesday, September 27, 1876, and end about the 1st of March, 1877.

Faculty.

ISSAC E. TAYLOR, M. D.,

Emeritus Professor of Obstetrics and Diseases of Women and Children, and President of the Faculty.

JAMES R. WOOD, M. D., LL.D.,
Emeritus Prof. of Surgery.

FORDYCE BARKER, M. D.
Professor of Clinical Midwifery and Diseases of Women.

AUSTIN FLINT, M. D.,

Professor of the Principles and Practice of Medicine and Clinical Medicine.

W. H. VAN BUREN, M. D.,

Professor of Principles and Practice of Surgery and Clinical Surgery.

LEWIS A. SAYRE, M. D.,

Professor of Orthopedic Surgery, Fractures and Dislocations, and Clinical Surgery.

ALEXANDER B. MOTT, M. D.,

Professor of Clinical and Operative Surgery.

WILLIAM T. LUSK, M.D.,

Professor of Obstetrics & Diseases of Women and Children and Clinical Midwifery.

EDMUND R. PEASLEE, M.D., LL. D.

Professor of Gynæcology.

WILLIAM M. POLK, M.D.,

Professor of Materia Medica and and Therapeutics and Clinical Medicine.

AUSTIN FLINT, Jr., M.D.

Professor of Physiology and Physiological Anatomy, and Secretary of the Faculty.

ALPHEUS B. CROSBY, M.D.,

Professor of General Descriptive & Surgical Anatomy.

R. OGDEN DOREMUS, M. D., LL.D.

Professor of Chemistry and Toxicology.

EDWARD G. JANEWAY, M. D.,

Professor of Pathological Anatomy and Histology, Diseases of the Nervous System, and Clinical Medicine.

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Professor of Opthalmology and Otology.

JOHN P. GRAY, M.D.,

Professor of Psychological Medicine and Medical Jurisprudence

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Professor of Dermatology, and adjunct to the Chair of Principles of Surgery.

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Professor of Practical Anatomy

[Demonstrator of Anatomy.]

LEROY MILTON YALE, M.D.,

Lecturer Adjunct upon Orthopedic Surgery.

A. A. SMITH, M.D.,

Lecturer Adjunct upon Clinical Medicine.

A distinctive feature of the method of instruction in this College is the union of Clinical and didactic teaching. All the lectures are given within the hospital grounds. During the Regular Winter Session, in addition to four didactic lectures on every week day except Saturday, two or three hours are daily allotted to clinical instruction.

The Spring Session will consist chiefly of recitations from Text-books. This term continues from the middle of March to the end of June. During this session there will be daily recitations in all the departments, held by a corps of examiners appointed by the regular Faculty. Regular clinics are also given in the Hospital and College building.

FEES FOR THE REGULAR SESSION.

Fees for tickets to all the Lectures during the Preliminary and Regular Term including Clinical Lectures	$140 00
Matriculation Fee	5 00
Demonstrator's Ticket (including material for Dissection)	10 00
Graduation Fee	30 00

FEES FOR THE SPRING SESSION.

Matriculation (Ticket good for the following Winter)	$ 5 00
Recitations, Clinics and Lectures	35 00
Dissection, (Ticket valid for the following Winter)	10 00

Students who have attended two full Winter courses of lectures may be examined at the end of their second course upon Materia Medica, Physiology, Anatomy, and Chemistry, and, if successful, they will be examined at the end of their third course upon Practice of Medicine, Surgery, and Obstetrics only.

For the Annual Circular and Catalogue, giving regulations for graduation, and other information, address the Secretary of the College, Prof. AUSTIN FLINT, Jr. Bellevue Hospital Medical College.

TO THE MEDICAL PROFESSION.

A NEW AND IMPORTANT REMEDY.

LACTOPEPTINE.

LACTOPEPTINE contains all the agents of digestion that act upon food, from mastication to its conversion into chyle, and is therefore the most important remedy for Dyspepsia that has ever been produced.

The digestive power of LACTOPEPTINE is seven times greater than any preparation of Pepsin in the market, as it has the important advantage of dissolving all aliment used by mankind, while Pepsin acts only upon plastic food.

This preparation has now been in the hands of the Medical Profession for two years, during which time its therapeutic value has been most thoroughly established in cases of **Dyspepsia, Intestinal diseases of Children, Chronic Diarrhœa, Constipation, Vomiting in Pregnancy or Dyspepsia, Headache, and all diseases arising from imperfect nutrition.**

One of the most important applications of **LACTOPEPTINE** *is in those cases where the digestive organs are unable, from debility, to properly prepare for assimilation the remedies indicated. In such cases combine it with the remedy indicated.*

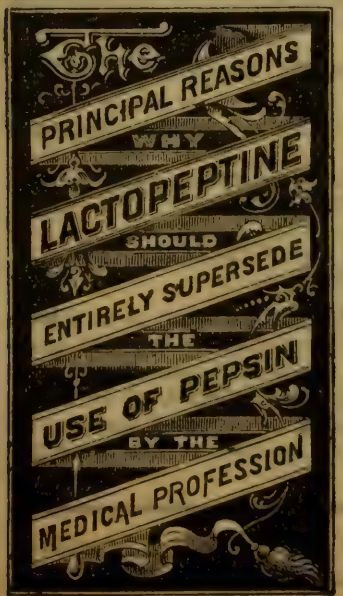
R. & C.
N.Y.
LACTOPEPTINE
DOSE:
Three to Ten Grains after Each Meal.
LACTOPEPTINE contains the five active agents of digestion—*Pepsin, Veg. Ptyalin, Pancreatine, Lactic Acid* and *Hydrochloric Acid*—combined in the same proportion as they exist in the human system. One dr. will digest from 8 to 10 ozs. of either albumen, fibrin, casine or gelatine; emulsionize 6 ozs. of cod liver oil, and convert 4 ozs. of starch into glucose.
LACTOPEPTINE will be found far superior to all other remedies in Dyspepsia and kindred diseases.
Also, particularly indicated in Anemia, General Debility, Chronic Diarrhœa, Constipation, Headache, and Depraved Condition of the Blood resulting from imperfect digestion.
REED & CARNRICK,
Pharmacists,
NEW YORK.

LACTOPEPTINE, *as well as all other preparations of our manufacture, is prepared strictly for the use of the Medical Profession, and is kept invariably in their hands.*

FORMULA OF LACTOPEPTINE.

Sugar of Milk,	20 *Ounces.*	*Veg. Ptyalin or Diastase*,	1 *Drachm.*
Pepsin,	4 "	*Lactic Acid*,	2½ *fl. Drachms.*
Pancreatine,	3 "	*Hydrochloric Acid*,	2½ *fl.* "

Powder and Mix.



1st.—It will digest from three to four times more *coagulated albumen* than any preparation of Pepsin in the market.

2d.—It will emulsionize and prepare for assimilation the oily and fatty portions of food, Pepsin having no action upon this important alimentary article.

3d.—It will change the *starchy* portions of vegetable food into the assimilable form of Glucose.

4th.—It contains the natural acids secreted by the stomach (*Lactic and Hydrochloric*), without which Pepsin and Pancreatine will not change the character of coagulated albumen.

5th.—Experiments will readily show that the digestive power of the ingredients of Lactopeptine, when two or more are combined, is much greater than when separated. Thus, 4 grs. of Pepsin and 4 grs. of Pancreatine mixed, will dissolve one third more albumen than the combined digestive power of each agent separately in same length of time.

6th.—IT IS MUCH LESS EXPENSIVE TO PRESCRIBE. It dissolves nearly four times as much coagulated albumen as Pepsin, besides digesting all other food taken by the human stomach. *An ounce of Lactopeptine is, therefore, fully equal in digestive power to seven ounces of Pepsin, yet it is furnished at about the same price.*

All the Statements made in this Circular are the result of repeated and careful experiments.

The palatability and digestive power of LACTOPEPTINE has been more than doubled during the past two months, by producing several of its component parts free from all extraneous matter, and we now believe it is not susceptible of any further improvement.

Physicians who have not given LACTOPEPTINE a trial in their practice, are respectfully requested to read the following opinions of some of our leading Practitioners as to its merits as an important remedial agent.

IN ADDITION TO THE FOLLOWING RECOMMENDATIONS, WE HAVE RECEIVED OVER SEVEN HUNDRED COMMENDATORY LETTERS FROM PHYSICIANS, A LARGE NUMBER OF WHICH ENUMERATE CASES WHERE PEPSIN ALONE HAD FAILED TO BENEFIT, BUT FINALLY HAD BEEN TREATED SUCCESSFULLY WITH LACTOPEPTINE.

The undersigned, having tested REED & CARNRICK'S preparation of Pepsin, Pancreatine, Diastase, Lactic Acid and Hydrochloric Acid, made according to published formula, and called *Lactopeptine*, find that in those diseases of the stomach where the above remedies are indicated, it has proven itself a desirable, useful and well adapted addition to the usual pharmaceutical preparations, and therefore recommend it to the profession.

NEW YORK, *April 6th*, 1875.

J. R. LEAMING, M. D.,
Attending Physician at St. Luke's Hospital.

ALFRED L. LOOMIS, M. D.,
Professor of Pathology and Practice of Medicine, University of the City of New York.

JOSEPH KAMMERER, M. D.,
Clinical Professor of Diseases of Women and Children, University of the City of New York.

LEWIS A. SAYRE, M. D.,
Professor of Orthopœdic Surgery and Clinical Surgery, Bellevue Hospital Medical College.

EDWARD G. JANEWAY, M. D.,
Professor Pathological and Practical Anatomy, and Lecturer on Materia Medica and Therapeutics, and Clinical Medicine.

SAMUEL R. PERCY, M. D.,
Professor Materia Medica, New York Medical College.

J. H. TYNDALL, M. D.,
Physician at St. Francis' Hospital.

JOSEPH E. WINTERS, M. D.,
House Physician Bellevue Hospital.

GEO. F. BATES, M. D.,
House Surgeon Bellevue Hospital.

INEBRIATE ASYLUM, NEW YORK, March 25th, 1875.

I have carefully watched the effects of *LACTOPEPTINE*, as exhibited in this institution, for about six months, especially in the treatment of Gastritis, and it gives me pleasure to be able to say that I have found the best results from it, supplying as it does an abnormal void of nature in the secretions of the stomach.

N. KEELER MORTON, M. D.

BRANDON, VT., March 31st, 1875.

I desire to say that I have used *LACTOPEPTINE* for a year, not only on my friends, but also in my own case, and have found it one of the most valuable aids to digestion that I have ever used.

A. T. WOODWARD, M. D.,
Late Professor of Obstetrics and Diseases of Women and Children, Vermont Med. College.

EXTRACT FROM A REPORT UPON THE USES OF LACTOPEPTINE, BY J. KING MERRITT, M. D., FLUSHING, L. I.

About six months since I saw a notice of *LACTOPEPTINE* and its analysis in a Medical Journal, and having long ago recognized the inability of Pepsin to reach those cases in which the several processes of digestion are all more or less involved, I immediately commenced the use of *LACTOPEPTINE* in my own case. This was, in brief, an inherited, fostered, and persistent condition of General Dyspepsia, which I had treated for several years with Pepsin, finding in its use good service, although the general results were discouraging.

A large proportion of diseases are the result of imperfect digestion.

In all cases when the stomach is unable to digest and appropriate the remedies indicated, they should be combined with Lactopeptine.

The effect of *LACTOPEPTINE* on my powers of digestion has far surpassed my expectations, and its remedial qualities in numerous cases, more or less complicated, have been all that I could desire. In these cases *LACTOPEPTINE* was associated with other remedies indicated, for the purpose of facilitating their assimilation, which is so often nullified by a disordered and debilitated condition of the digestive organs.*

I will now give, in brief, an epitome of a case recovering under the use of *LACTOPEPTINE*. She was a married lady, who five years ago became afflicted with diarrhœa, which had baffled every mode of intelligent treatment. She had an intestinal flux, body much emaciated, and her entire health was greatly impaired. I treated her with *LACTOPEPTINE*, in conjunction with other remedies, many of which had been formerly used without avail. She is now rapidly recovering.

I shall only add that the more my experience, in its varied applicability, extends, the more its beneficial effects appear.

NEWTON, IOWA, May 19th, 1875.

I have been using *LACTOPEPTINE* for several months, and after a careful trial in stomach and bowel troubles, find that it has no equal. In all cases of indigestion and lack of assimilation, it is a most splendid remedy. H. E. HUNTER, M. D.

WEST NEWFIELD, ME., June 14th, 1875.

LACTOPEPTINE seems to be all that it is recommended to be. It excels all remedies that I have tried in aiding a debilitated stomach to perform its functions.

STEPHEN ADAMS, M. D.

WOLCOTT, WAYNE CO., N. Y., June 29th, 1875.

From the experience I have had with *LACTOPEPTINE*, I am of the opinion that you have produced a remedy which is capable of fulfilling an important indication in a greater variety of diseases than any medicine I have met with in a practice of over 45 years.

JAMES M. WILSON, M. D.

BROWNVILLE, N. Y., August 3d, 1875.

Some time since I received a small package of *LACTOPEPTINE*, which I have used in a case of long standing Dyspepsia. The subject is a man 40 years of age; has had this ailment over 10 years. I never had so bad a case before, and I have been practicing medicine 21 years. Your *LACTOPEPTINE* seems just the remedy he needs. He is improving finely, and can now eat nearly any kind of food without distress. I have several cases I shall take hold of as soon as I can obtain the medicine. W. W. GOODWIN, M. D.

EDDYVILLE, WAPELLO CO., IOWA, May 5th, 1875.

I have used the *LACTOPEPTINE* in my practice for the last eighteen months, and find it to be one of our great remedies in all diseases of the stomach and bowels. I was called last fall to see a child three years old, that was almost in the last struggles of death with Cholera Infantum. I ordered it teaspoonful doses of Syrup of Lactopeptine, and in a few days the child was well. I could not practice without it. F. C. CORNELL, M. D.

CORTLAND, DE KALB CO., ILL., August 12th, 1875.

I received recently a small package of *LACTOPEPTINE* with the request that I should try it in a severe case of Dyspepsia. I selected a case of a lady who has been a sufferer over 30 years. She reported relief after the first dose, and now, after using the balance of the package in doses of three grains, three times daily, says she has received more benefit from it than from any other remedy she had ever tried. G. W. LEWIS, M. D.

* We desire particularly to call the attention of the Profession to the great value of LACTOPEPTINE when used in conjunction with other remedies, especially in those cases in which the digestive organs are unable, from debility, to properly prepare for assimilation the remedies indicated.

One drachm of Lactopeptine will digest ten ounces of Coagulated Albumen, while the same quantity of any standard preparation of Pepsin in the market will dissolve but three ounces.

One drachm of Lactopeptine dissolved in four fluid drachms of water will emulsionize sixteen ounces of Cod Liver Oil.

CHILLICOTHE, MO., September 4th, 1874.

I have used *LACTOPEPTINE* this summer with good effect in all cases of weak and imperfect digestion, especially in children during the period of dentition, cholera infantum, &c. I regard it, decidedly, as being the best combination containing Pepsin that I have ever used. J. A. MUNK, M. D.

FORT DODGE, IOWA, November 15th, 1874.

I have fairly tried, during the past summer and fall, your *LACTOPEPTINE*, and consider it a most useful addition to the list of practical remedies. I have found it especially valuable in the *gastro-intestinal* diseases of children. W. L. NICHOLSON, M. D.

WHITE HALL, VA., January 4th, 1875.

A short time since I sent for some of your *LACTOPEPTINE*, which I used in the case of a lady who had been suffering with dyspepsia for over twelve months, and who had taken Pepsin, and other remedies usually prescribed in that disease, with very little benefit. I ordered the *LACTOPEPTINE*, and was pleased to find a decided improvement after a few days, which has steadily increased. At the present time she appears to have entirely recovered. Very truly, E. B. SMOKE, M. D.

INDIANOLA, IOWA, December 11th, 1874.

I consider the *LACTOPEPTINE* a heaven-sent remedy for all digestive troubles. I gave it to a lady troubled with exhaustive nausea and vomiting from pregnancy, with immediate and perfect relief, after all other remedies had failed. She was almost in *articulo mortis*. The third day after taking the *LACTOPEPTINE* she was able to be up. I was called in council the other day to a case of Intussusception; the patient was vomiting stercoracious matter; had retained no nutrition for several days. I gave the *LACTOPEPTINE* with immediate relief. Ingestion was retained. I relieved the bowels by inflation, got an operation, and the patient will recover. I consider the *LACTOPEPTINE* was his *sheet anchor*. I am now using the *LACTOPEPTINE* in Cancer of the Stomach—the only medicine that gives the patient any relief. It seems to act as an anodyne in his case more so than morphine. C. W. DAVIS, M. D.

CONTOCOOK, N. H., November 25th, 1874.

After a thorough trial, I believe *LACTOPEPTINE* to be one of the most important of the new remedies that have been brought to the attention of physicians during the last ten years. I have used it in several cases of vomiting of food from dyspepsia, and in the vomiting from pregnancy, with the best of success. The relief has been immediate in every instance. In some of the worst cases of Cardialgia, heretofore resisting all other treatment, *LACTOPEPTINE* invariably gave immediate relief. It has accomplished more, in my hands, than any other remedy of its class I ever met with, and I believe no physician can safely be without it. It takes the place of Pepsin, is more certain in its results, and is received by patients of all ages without complaint, being a most pleasant remedy. I have used *LACTOPEPTINE* in my own case, having been troubled with feelings of weight in the stomach and distress after eating, but always have obtained immediate relief upon taking the elixir in teaspoonful doses. GEORGE C. BLAISDELL, M. D.

MO. VALLEY, IOWA, November 12th, 1874.

Some months since I saw in a medical journal a notice of your *LACTOPEPTINE*. Having in charge a patient in whose case I thought it was indicated, I prescribed it in 5 gr. doses. He used it about a week and was greatly benefited. I failed to procure more just then, so I gave him Pepsin instead, the patient thinking it to be the same prescription. After two days he returned to my office, saying that "the last medicine didn't hit the spot, but that which you gave me last week was just the thing, and has given me more relief than any medicine I have ever taken." I consider this a fair test (so far as it goes) of the merits of this new, and I think, invaluable remedy. G. W. COIT, M. D.

One drachm of Lactopeptine will transform four ounces of Starch into Glucose.

Pancreatine and Diastase are more important digestive agents than Pepsin.

COMMUNICATIONS FROM MEDICAL JOURNALS.

We have for several months been prescribing various preparations of medicine containing *LACTOPEPTINE* as an important aid to digestion. It may be advantageously combined with cod liver oil, calisaya, iron, bismuth, quinine and strychnia. *LACTOPEPTINE* is composed of pepsin, ptyalin, pancreatine, lactic acid and hydrochloric acid—pepsin, lactic and hydrochloric acids being in the gastric juice, ptyalin in the saliva, and pancreatine emulsionizing fatty substances. The theory of its action being rational, we have prescribed the various preparations referred to above with more evidence of benefit than we ever observed from pepsin.—*St. Louis Medical and Surgical Journal*, September, 1874.

AN ARTICLE ON LACTOPEPTINE, BY LAURENCE ALEXANDER, M. D., OF YORKVILLE, S. C., IN THE *ATLANTA MEDICAL AND SURGICAL JOURNAL*, NOVEMBER, 1874.

Some time ago a small box, labelled "Physicians' Samples *LACTOPEPTINE*," was placed in my hands, with the request that I would give it a trial upon some one suffering from dyspepsia. Having, like other physicians, a large *per centum* of just such cases always on hand, in which various medicines and remedies had been used without success, I gladly consented, hoping that something had really been found at last to supply the want felt by every practitioner in the treatment of this troublesome complaint. After several months' experience in the use of this preparation, in which it has been thoroughly tested upon a large number of patients with such gratifying results, I am induced to recommend it to the consideration of the profession, feeling confident that, with due care in their diagnosis, and the many little cautions always necessary, such as restricting the excessive use of fluids while eating, etc., and a little patience on the part of the sufferer, its good effects will be seen beyond a doubt.

While I employ it extensively in many deranged conditions of the bowels incident to infancy and childhood, I find it equally efficacious in constipation and all diseases arising from imperfect nutrition in the adult. In sickness of pregnancy it answers well, far exceeding, in my hands, oxalate of cerium, extract lupulin, or the drop doses of carbolic acid, so highly extolled by some practitioners. In its combination with iron, quinine and strychnia, we have the advantage of using, in cases of great nervous depression and debility peculiar to the dyspeptic, our most valuable agent in a truly elegant form.

TO TEST THE DIGESTIVE POWER OF LACTOPEPTINE IN COMPARISON WITH ANY PREPARATION OF PEPSIN IN THE MARKET.

To five fluid ounces of water add one drachm of Lactopeptine, half drachm of Hydrochloric Acid, 10 ounces Coagulated Albumen, allowing it to remain from two to six hours at a temperature of 105 deg., agitating it occasionally.

Lactopeptine is prepared in the form of Powder, Sugar Coated Pills, Elixir, Syrup, Wine and Troches.

LACTOPEPTINE is also combined with the following preparations:

EMULSION OF COD LIVER OIL WITH LACTOPEPTINE.

This combination will be found superior to all other forms of Cod Liver Oil in affections of the Lungs and other wasting diseases. Used in Coughs, Colds, Consumption, Rickets, Constipation, Skin Diseases and Loss of Appetite.

The Oil in this preparation being partly digested before taken, will usually agree with the most debilitated stomach. Although we manufacture seven other preparations of Cod Liver Oil, we would recommend the above as being superior to either of them. It is very pleasant to administer, compared with the plain Oil, and will be readily taken by children.

EMULSION OF COD LIVER OIL WITH LACTOPEPTINE AND LIME.

Each ounce of the Emulsion contains 16 grs. Lactopeptine and 16 grs. Phosphate Lime.

ELIXIR LACTOPEPTINE.

The above preparation is admirably adapted in those cases where Physicians desire to prescribe Lactopeptine in its most elegant form.

REED & CARNRICK manufacture a Full Line of Fluid Extracts.

BEEF, IRON AND WINE WITH LACTOPEPTINE.

In those debilitated dyspeptic cases when an Iron Tonic, combined with the strengthening properties of Extract of Beef and Wine are indicated, this preparation will be found most efficacious.

ELIXIR PHOSPHATE OF IRON, QUININE AND STRYCHNIA WITH LACTOPEPTINE.

There can be no combination more suitable than the above in cases of Nervous and General Debility, attended with Dyspepsia.

ELIXIR LACTOPEPTINE, STRYCHNIA AND BISMUTH.

A valuable combination in cases of Dyspepsia, attended with nervous debility.

ELIXIR GENTIAN AND CHLORIDE OF IRON WITH LACTOPEPTINE.

An elegant and reliable remedy in cases of Dyspepsia attended with General Debility.

SYRUP LACTOPEPTINE COMP.

Each ounce contains 24 grains Lactopeptine, 8 grains Phosphate of Iron, 8 grains Phosphate Lime, 8 grains Phosphate Soda, and 8 grains Phosphate Potash.

This preparation will be found well suited to cases of General Debility, arising from impaired digestion, and also of great value in Pulmonary Affections.

FORMULÆ.

The following valuable formulæ have been contributed by J. KING MERRITT, M. D., *who has used them with great success in his practice:*

No. 1.—FOR INTERMITTENT FEVER WITH CONGESTION OF LIVER.

℞			
	Liquid Lactopeptine,		dr. vi.
	Fl. Ex. Cinchona Comp.,		dr. i.
	Fl. Ex. Taraxacum,		
	Tinct. Zingiber,	aa	dr. iii.
	Hydrochloric Acid Dilut.,		dr. i.
	Spts. Lavender Comp.,		dr. ii.
	Sulphate Quinia,		grs. xl.

M. *Dose.*—One teaspoonful every two or three hours.
SIG.—Quinine mixture or tonic mixture.

REMARKS.

This mixture should be taken every two hours in the case of a quotidian attack, as soon after the subsidence of the paroxysms as the stomach will accept it, or even during the sweating stage, if the stomach is not especially irritable, and should be continued until the hour of anticipated paroxysms at the same rate, except during the night, from 10 P. M. to 4 A. M., as a general rule. Six to eight doses to be taken during the first interval, and if the attack does not recur, then continue the mixture daily for one week, at a rate diminished by one hour each day.

No. 2.—FOR INTERMITTENT FEVER WITH IRRITABLE STOMACH.

℞		
	Liquid Lactopeptine,	dr. vi.
	Fl. Ex. Cinchona Comp.,	dr. i.
	Tinct. Zingiber,	dr. iii.
	Spts. Lavender Comp.,	dr. v.
	Aromatic Sulphuric Acid,	dr. i.
	Essence Menth. Pip. or Gaultheria,	gtts. x.
	Sulphate Quinia,	grs. xl.

M. *Dose.*—One teaspoonful with water *ad libitum* every two or three hours, as in Formula No. 1, and in accordance with the type of the attack. Begin at the rate indicated;

that is, if "Tertian," every three hours, and then after first interval, if the paroxysm does not recur, continue mixture at a diminished rate each succeeding day, as indicated in remarks appended to Formula No. 1, to wit, by increasing the period of time between each dose of medicine an hour every day until a week has passed, when the frequency of dose will be reduced to three times a day, at which rate it should be continued until complete restoration of appetite and strength.

No. 3.—FOR MALARIAL DYSPEPSIA.

℞

Liquid Lactopeptine,		dr. fl. vi.
Fl. Ex. Cinchona Comp.,		
Tinc. Nux Vomica,	aa	dr. xi.
Spts. Lavender Comp.,		oz. ss.
Hydrocyanic Acid Dilut.,		dr. ss.
Syr. Aromatic Rhubarb,		oz. ss.
Sulphate Quinine,		dr. ss.

M. *Dose.*—One teaspoonful with water *ad libitum* at meals (before or after), and *at bed time if required;* also, use in addition after the meals full doses of Pulv. Lactopeptine with Spts. Lavender Comp. and Lime Water, *in case the patient should suffer from positive signs of indigestion, although the dose of Formula No. 3 has already been taken at the meal time,* either immediately before or after eating, in accordance with the rule or foregoing instruction.

No. 4.—FOR CHRONIC DIARRHŒA.

℞

Liquid Lactopeptine,	dr. vi.
Liq. Opii Comp. (Squibbs'),	dr. iii.
Nitric Acid Dilut.; or, Aqua Regia Dilut.,	dr. i.
Syr. Aromatic Rhubarb,	dr. ii.
Pulv. Nit. Bismuth,	dr. ss.
Aqua Camph.,	oz. ss.

M. *Dose.*—One teaspoonful with water after each flux from bowels, and as a rule, at bed time, even if the diarrhœa is apparently checked at that hour, and *this rule* should be *persisted in* for two or three days, or until the diarrhœal tendency has been entirely subdued.

PEPSIN—PANCREATINE—DIASTASE.

In addition to *LACTOPEPTINE* we manufacture PEPSIN, PANCREATINE and DIASTASE. They are put up separately in one ounce and pound bottles.

They will be found equal in strength with any other manufacture in the world.

They are all presented in a saccharated form, and are therefore very palatable to administer.

COMP. CATHARTIC ELIXIR.

The only pleasant and reliable Cathartic in liquid form that can be prescribed.

Each fl. oz. contains:

Sulph. Magnesia,	1 dr.
Senna,	2 "
Scammony,	6 grs.
Liquorice,	1 dr.
Ginger,	3 grs.
Coriander,	5 "

With flavoring ingredients.

Dose.—Child five years old, one to two teaspoonfuls; adult, one to two tablespoonfuls.

This preparation is being used extensively throughout the country. It was originated with the design of furnishing a liquid Cathartic remedy that could be prescribed in a palatable form. It will be taken by children with a relish.

MAINE INSANE HOSPITAL, AUGUSTA, Feb. 25th, 1875.

I am happy to say that we are much pleased with the Compound Cathartic Elixir. It has, so far, proved the best Liquid Cathartic we have ever used in our Institution. It acts effectively and kindly, without irritation or pain. H. M. HARLOW, M. D.

Private Formulas of Pills or other preparations made to order.

Strychnia Compound Pill.

Strychnia,	1-100 grain.
Phosphorus,	1-100 "
Ex. Cannabis Indica,	1-16 "
Ginseng,	1 "
Carb. Iron,	1 "

Dose.—One to two.

A reliable and efficient Pill in Anaphrodisia, Paralysis, Neuralgia, Loss of Memory, Phthisis, and all affections of the Brain resulting from Loss of Nerve Power.

Price, 80 cents per hundred.

Sent by mail, prepaid, on receipt of price.

Hæma, Quinia and Iron Pill.

Ext. Blood,	2 grains.
Quinine Sulph.,	1 grain.
Sesqui Oxide Iron,	1 "

Dose.—One to three.

Price, $2.00 per hundred.

Sent by mail, prepaid, on receipt of price.

HÆMA PILLS.

We beg to present to the Medical Profession for their special consideration our several preparations of Blood Pills. The use of Blood medicinally, and the importance of its administration in a large class of diseases, has arrested the attention of many of the leading Physicians of Europe, and has received their warmest attestation. Prominent among these may be mentioned Prof. Panum, of the University of Copenhagen, who is using it with great success in the hospital of that city.

At the abattoir in this city, Boston, and in every part of the country, there can be seen numerous persons afflicted with Pulmonary Affections, Chlorosis, Paralysis, Anemia, and other ailments, who are daily drinking the blood of the ox, and many with more benefit than they have derived from any other source.

The blood used by us being *Arterialized Male Bovine only*, is secured as it flows from the animal in a vacuum pan, and the watery portion (85 per cent.), eliminated at a temperature not exceeding 100° F., the remaining mass, containing every constituent of the blood, being the base of our preparations.

HÆMA (Ext. Blood), 4 grs.

Dose.—Two to four.

90 cts. per hundred.

HÆMA COMP.
Ext. Blood, 2 grs.
Lacto-Phosphate Lime, 1 gr.
Pepsin, 2 gr.
Dose.—One to three.
$1.50 per hundred.

HÆMA, QUINIA, IRON AND STRYCHNIA,
Ext. Blood, 2 grs.
Quinine Sulph., 1 gr.
Sesqui Oxide Iron, 1 gr.
Strychnine, 1-75 gr.
Dose.—One to three.
$2.00 per hundred.

Samples sent to Physicians, postage prepaid, on receipt of price.

LACTOPEPTINE and most of our leading preparations can be obtained from the principal Druggists of the United States.

SUGAR COATED PILLS, TROCHES AND POWDERS CAN BE SECURELY SENT BY MAIL.

Price of LACTOPEPTINE by Mail.

One ounce sent by mail, prepaid, on receipt of	$1 00
One pound " " " " "	13 00

A fraction of an ounce or pound sent by mail on receipt of corresponding price.

We guarantee all goods of our manufacture.

In ordering, please designate R. & C.'s manufacture.

Send for PRICE LIST, DOSE BOOKS and DISCOUNTS.

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N.B.—Test of purity, insoluble in Price's glycerine.
Morson's Gelatine (The most economical substitute for Isinglass.)
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CINCHO-QUININE.

It is a combination of *all* the active medicinal principles of the best Calisaya Bark, and after the prolonged and thorough testing it has had, it stands unrivalled as a prompt, safe, and uniformly reliable antiperiodic, possessing all the advantages, with none of the disadvantages, of Sulphate of Quinine.

Cincho-Quinine contains no external agents, as sugar, liquorice, starch, magnesia, etc. *It is wholly composed of the bark alkaloids:* 1st, quinia; 2d, cinchonia; 3d, quinidia; 4th, cinchonidia; 5th, the other alkaloidal principles present in barks, which have not been distinctly isolated, and the precise nature of which is not well understood. In the beautiful white amorphous scales of Cincho-Quinine the whole of the active febrifuge and tonic principles of the cinchona barks are secured without the inert, bulky ligniu, gum, etc.

The following well known Analytical Chemists say:

UNIVERSITY OF PENNSYLVANIA, Jan. 22, 1875.

"I have tested Cincho-Quinine, and have found it to contain *quinine, quinidine, cinchonine* and *cinchonidine.*" F. A. GENTH, Prof. of Chemistry & Mineralogy.

"I have made a careful analysis of Cincho-Quinine, and find it to contain *quinine, quinidine, cinchonine* and *cinchonidine.*"
S. P. SHARPLES, State Assayer of Mass.

LABORATORY OF THE UNIVERSITY OF CHICAGO, Feb. 1, 1875.

"—I made a qualitative examination for *quinine, quinidine* and *cinchonine*, and hereby certify that I found these alkaloids in Cincho-Quinine."
C. GILBERT WHEELER, Professor of Chemistry.

When Cincho-Quinine was first presented to the public, I analyzed it, and found it to contain the principles of the bark as represented. Since that time I have never used one grain of sulphate of quinine, and never expect to, as it fulfils all the indications for its use, without the unpleasant symptoms which always have rendered, and will render the sulphate objectionable, more particularly with children. I presume I have as many cases as any other practitioner in this vicinity, and have had ample opportunities for testing its virtues. Its price renders it also valuable, but I must state candidly, that if the price was more than the sulphate, I would then buy it, and pay even double, if I could not obtain it at a less rate.
G. E. HEYDON, M.D.,
Analytical and Technical Chemist. Kansas City, Mo
KANSAS CITY, MISSOURI.

I have used your Cincho-Quinine for several years; have found it answers the purpose for which it was given. I prefer it much to the sulphate, and have taken considerable of it myself.
G. N. SEARING, M.D.
HEMPSTEAD, NEW YORK.

It is believed to have these advantages over sulphate of quinine:

1st. It exerts the full therapeutic influence of sulphate of quinine, in the same doses, without oppressing the stomach or creating nausea. It does not produce cerebral distress, as sulphate of quinine is apt to do; and in the large number of cases in which it has been tried, it has been found to produce much less constitutional disturbance.

2d. *It has the great advantage of being nearly tasteless.* The bitter is very slight, and not unpleasant to the most sensitive, delicate woman or child.

3d. It is less costly than sulphate of quinine. As in the case of that salt, the price will fluctuate with the rise and fall of barks, but we shall supply it at all times at less than the lowest market price of the sulphate.

4th. It meets indications not met by the sulphate.

☞ We will send a sample package for *trial*, containing fifty grains of Cincho-Quinine, on receipt of twenty-five cents, post-paid. Special prices given for orders amounting to one hundred ounces and upwards.

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